



OrgPublisher Published Chart Security Guide

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Introduction

The purpose of this document is to review each of the different levels of security for a published chart, including the data within a published chart.

It does not cover external security configuration of the network file structures or external resources such as servers.

OrgPublisher can set different levels of security for a published chart, depending on the publishing format you use. Also, depending on the version of OrgPublisher, there are several levels of security you can use with org chart data. These levels are:

- Basic chart encryption with password protection
- Authentication using either Microsoft Active Directory or Manual Authentication using specified user IDs and passwords
- Reverse Proxy where the User ID is supplied in HTTP header
- Custom field level security based on group membership
- Style level security based on group membership

Note: For animated and/or cross browser publishing, see the OrgPublisher Executive and Silverlight Server Configuration document.

Securing a PluginX Chart

OrgPublisher contains a security feature for charts published in the PluginX format; this feature encrypts the chart and sets a password. When end users access an encrypted chart, they must enter the password before the chart opens.

There are two levels of encryption, 40 bit and 128 bit. OrgPublisher uses **40 bit encryption** by default. To determine which encryption pack is installed on your machine, start Internet Explorer and select **About Internet Explorer** from the **Help** menu.

1. Follow the dialogs in the *Publishing Wizard*, selecting the **PluginX** publishing format.
2. When the wizard opens the *Password* dialog, select the **Password protect this chart** check box.

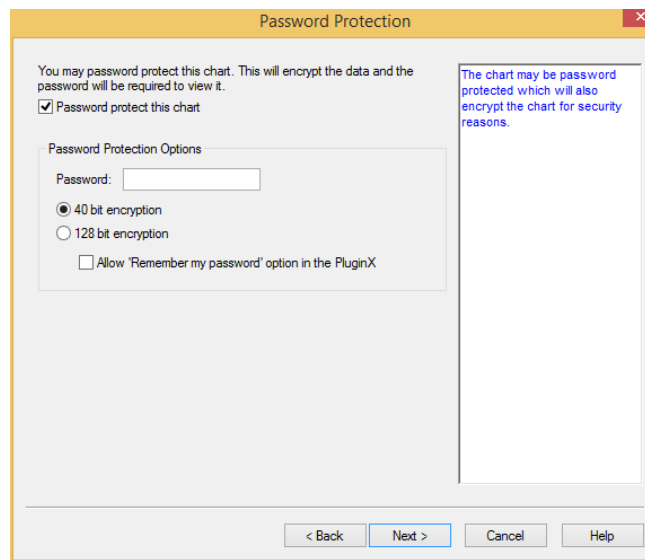


Figure 1.

Type the desired **Password**

-or-

If you want users to access the chart without typing the password each time they open it, select the **Allow 'Remember my password' option in the PluginX** check box.

Note: If you select 128 bit encryption, users who have not installed the Microsoft High Encryption Pack on their machines cannot view the chart.

3. Complete the *Publishing Wizard*.

When OrgPublisher or Internet Explorer opens the encrypted chart, the *Enter Password* dialog opens.

If you selected the **Remember my password** option when you published the chart, that check box appears in the dialog.

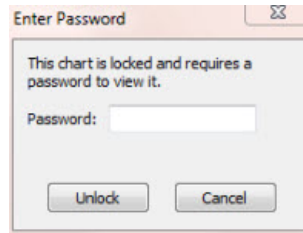


Figure 2.

4. Type the correct **Password** and click **Unlock** to open the chart.

-OR-

If you select **Remember my password**, you will not need to type the password each time; the chart will open in the same way an unprotected chart does.

EChart — Org Chart Authentication

OrgPublisher contains an EChart security feature that provides security at the chart, custom field (for both Rich and Thin Clients) and style levels (for Rich Client only). For information on field level security, see [EChart — Field Level \(Role-based\) Security Scenarios](#).

In order to secure ECharts, the OrgPublisher input file must contain a unique user ID custom field record. Additionally, if the manual entry of a password will be required, you must also keep the password information in a custom field record in the input file.

OrgPublisher uses the Microsoft Active Directory® operating system authentication to help secure a published chart. Authentication provides the knowledge of the location of each person in the chart, and OrgPublisher users must be charted in order to open a secured EChart.

The *Publishing Wizard* provides chart level security options; the *Custom Field Properties* dialog provides the field level security options.

The *List View*, *Profile View*, *Search View*, and *Search* dialog all reflect the same authentication level.

Commands, such as **Go to top of chart**, **Display Whole Chart**, and the drill-up/drill-down buttons, all recognize the "top of chart" as the user's supervisor box (exception: if the user's box is the starting box and drill up has been turned off, the user's Supervisor's box is not visible), and does not display chart information beyond that point.

Note: EChart security works well only with an unbroken hierarchy. Orphans within a secured chart may cause unexpected results.

Securing ECharts at the Custom Field Level

1. Verify that you have stored the appropriate custom field records in your input file.
To set field level security, from the Data menu, select **Custom Field Properties**
-or-

Click the  button in the toolbar.

Note: If you do not need field security, proceed to Step 7.

The *Custom Field Properties* dialog opens.

Note: Custom fields containing formulas are designated in the Custom Field Properties dialog by "(f)" in the Sample column field.

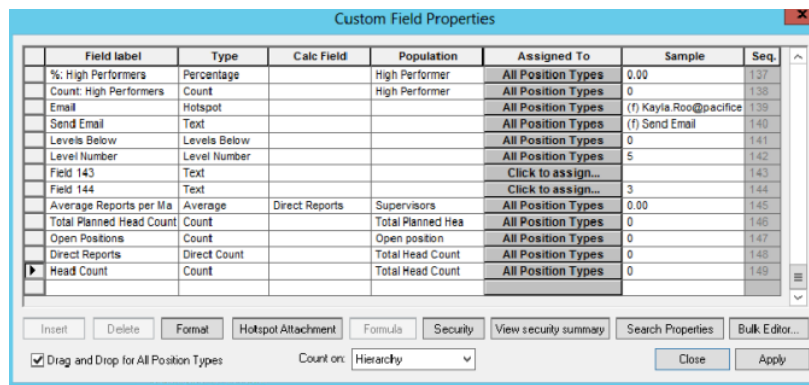


Figure 3.

3. Select a custom field (**Salary**) and click **Security**.
The *Custom Field Security* dialog opens.



Figure 4.

4. Select the search options for the chart:

If you want the chart users to be able to search for the custom field in the published chart, select the **Allow this field to be searchable** check box.

-or-

If you do not want the chart users to be able to search for the custom field in the published chart, clear the **Allow this field to be searchable** check box.

5. Select the radio button that best fits the user audience you want to access the field:

Entire chart — select this radio button if you want the field displayed throughout the entire chart. This is the default option.

User's box and subordinates — select this radio button if you want the field displayed only in the user's box and all boxes below it.

User's subordinates only — select this radio button if you want the field displayed only in the boxes below the user's box.

6. From the drop-down box, select the group (if any) that you want to access the secured field. The default option is **Everyone**. Fields display in the chart when both the user audience and group criteria are satisfied.
7. Click **OK**.

The *Custom Field Security* dialog closes.

8. Click **Apply**, and then click **Close** to accept your security settings and close the *Custom Field Properties* dialog.
9. Open the *Publishing Wizard* by selecting **Publishing Wizard** from the **Tools** menu

-or-

Click the Publishing Wizard  button in the toolbar.

10. Select the **Advance Mode** publishing option, and then follow the prompts in the wizard dialogs. When you reach the *Security* dialog, select a security level option.
If you select to secure your chart, users must appear in a box in the chart in order to open the chart.

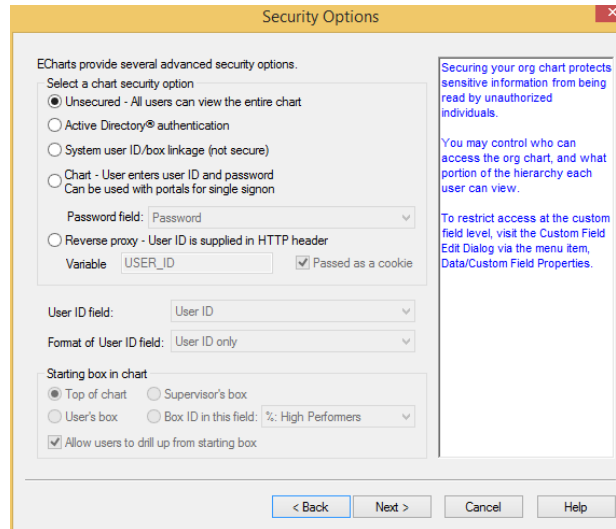


Figure 5.

There are five security options:

Unsecured — Grants access to all users.

Microsoft Active Directory® operating system authentication — Grants access to only those users who have Windows NT access and who are actually located in the chart.

System user ID/box linkage (not secure) — Grants access to any user ID on the user machine. This is not a secure setting. The chart opens at the user's box.

Chart — Requires users to type an ID and password to open and view the chart.

Reverse Proxy – The user ID is supplied in an HTTP header. When a user accesses the chart URL, a reverse proxy server intercepts the request and, through an authentication program/method, supplies the appropriate user ID as a variable in the HTTP header and sends it to the original destination. The EChart uses this variable value provided in the header to perform a lookup in a specified custom field containing the user IDs.

Note: An alternate option allows the variable to be passed as a cookie.

11. If you selected **Chart**, select the **Password field** containing the password information. This must be stored in a custom field record in the input file.
12. Select the **User ID field** that holds the unique user ID. This information must be stored in a custom field record in the input file.
13. In the **Starting box in chart** section, select the box you want OrgPublisher to display as top of chart.

Top of chart — Opens the chart at the original top of chart box, displaying all levels in the chart.

Supervisor's box — Opens the chart at the user's supervisor's box, displaying all levels from that point downward.

Employee's own box — Opens the chart at the user's box, displaying all levels from that point down.

Box ID in this field — Opens the chart at a top of chart box other than the previous options. This unique ID must be stored in a custom field record in the input file.

14. The **Allow users to drill up from starting box** check box allows users to navigate to levels above their box in the chart. Clear the check box if you do not want users to navigate above the starting box designated.
15. Complete the *Publishing Wizard*.

When the published chart opens, it reflects the security options you selected here.

Scenario Examples

Let's examine some scenarios based on the chart security options covered so far.

Since **Unsecured** and **System User ID/box linkage** do not represent secure options, and behave the same way upon entering the chart, we will concern ourselves with the **Microsoft Active Directory®** authentication and **Chart user ID and password**.

All data in the following sample chart is fictitious and not intended to represent an existing company.

Management

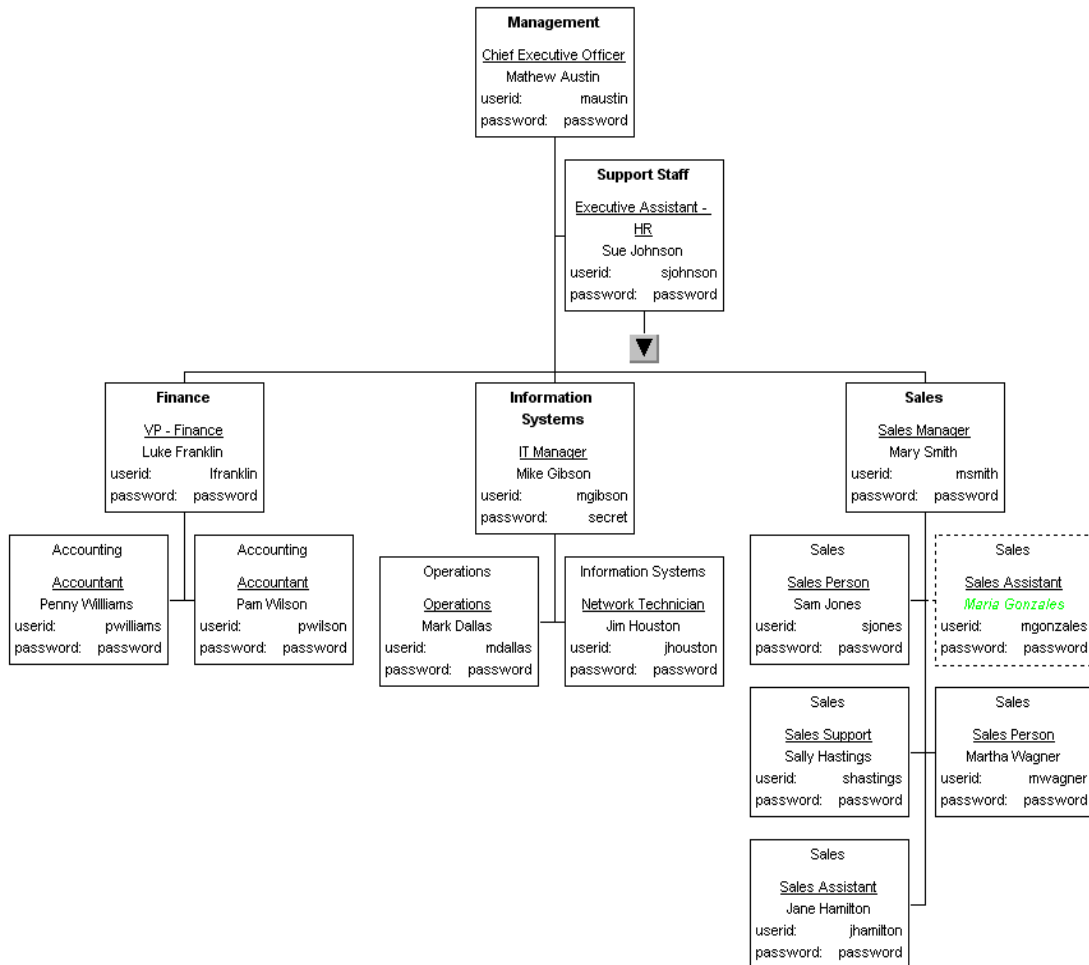


Figure 6.

Microsoft Active Directory® Authentication

The following dialog shows that we have selected Microsoft Active Directory® authentication. To use this method of authentication, the user IDs must exist in a custom field in the chart. The field we have chosen to contain the user ID is named **Userid**. We have also selected the **User ID only** format for the data in the custom field, and have elected not to allow drilling up from the starting box. Users can drill down (if there are multiple levels below the user). For the **Starting box in chart** option, we have chosen the **User's box** option.

The screenshot shows the 'Security Options' dialog box. It is titled 'Security Options' and has a close button (X) in the top right corner. The main content area is divided into several sections:

- Select a chart security option:**
 - Unsecured - All users can view the entire chart
 - Active Directory® authentication
 - System user ID/box linkage (not secure)
 - Chart - User enters user ID and password
Can be used with portals for single signon
- Password field:** Password (dropdown menu)
- Reverse proxy - User ID is supplied in HTTP header:**
 - Variable: USER_ID (text input)
 - Passed as a cookie
- User ID field:** User ID (dropdown menu)
- Format of User ID field:** User ID only (dropdown menu)
- Starting box in chart:**
 - Top of chart
 - Supervisor's box
 - User's box
 - Box ID in this field: %: High Performers (dropdown menu)
- Allow users to drill up from starting box

On the right side of the dialog, there is a help text box with the following text:

Securing your org chart protects sensitive information from being read by unauthorized individuals.

You may control who can access the org chart, and what portion of the hierarchy each user can view.

To restrict access at the custom field level, visit the Custom Field Edit Dialog via the menu item, Data/Custom Field Properties.

At the bottom of the dialog, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

Figure 7.

In this example, Mike Gibson is logged into his Windows Active Directory® Domain. When he accesses the chart, he enters the chart at his user's box, as shown in the following chart example.

There are no drill-up buttons, because we have cleared the option that allows users to drill-up. There are no drill-down buttons because Mike has only one level of reports. If there were multiple report levels, Mike Gibson could drill down to see them.

Information Systems

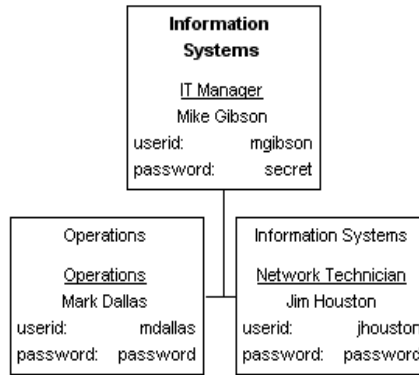


Figure 8.

Now we choose the same publishing option, only this time we allow the user to drill up as seen in the following figure.

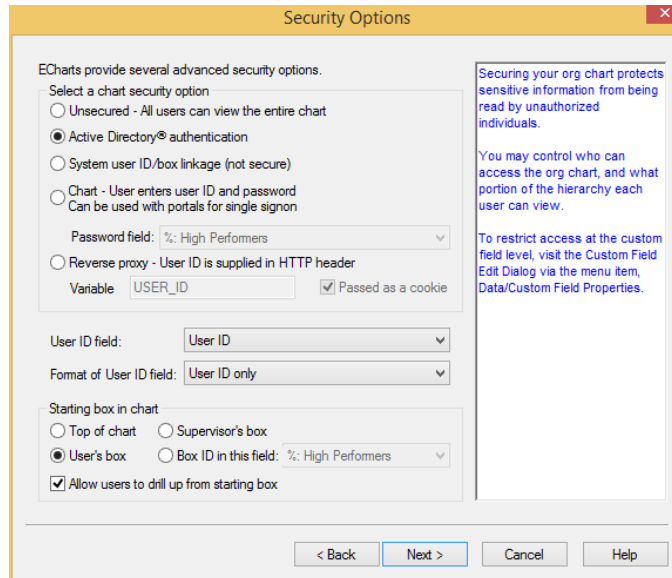


Figure 9.

Mike still enters the chart at the same point, but this time there is a drill-up button, allowing him to navigate up the tree to view other parts of the chart, as shown in the following figure.

Information Systems

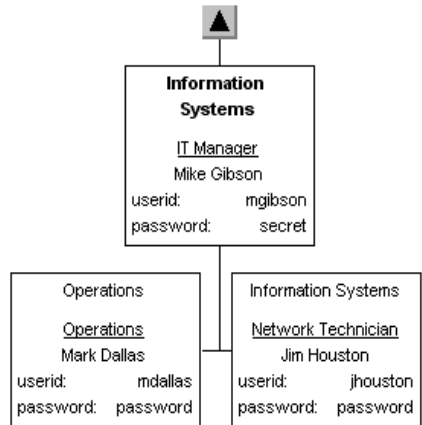


Figure 10.

In both examples so far, Mike has entered the chart at his box. This next scenario shows the user entering the chart starting at their supervisor’s box with drilling up turned off.

In the following figure and the resulting chart, the user is Jane Hamilton from the Sales department.

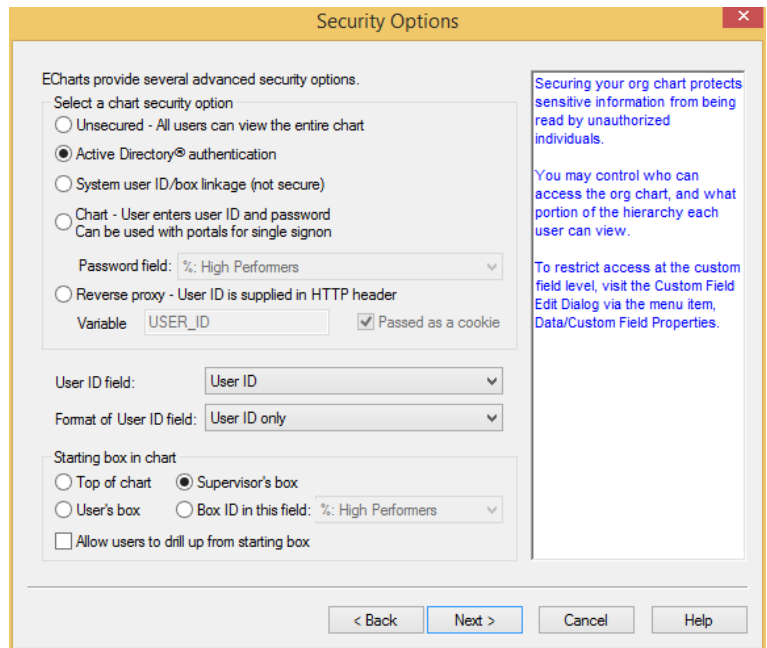


Figure 11.

Jane’s box and her supervisor’s box are both shown in the following figure.

Sales

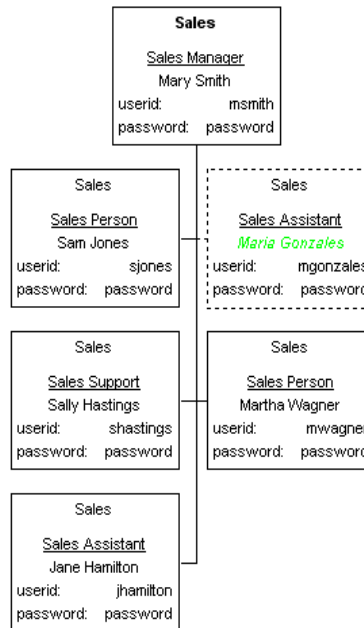


Figure 12.

The last option in the **Starting box in chart** section is called **Box ID in this field**. It allows a custom field to identify the starting point in the chart after authentication has taken place.

In this example, Matthew Austin has decided that he would like to have Luke Franklin have the same view of the org chart that he does.

To do this, a custom field (called **ProxyID** in this example) containing the box IDs of the starting box in the chart. For most people, this will be the same as their normal box ID.

But in Luke's case, instead of his normal box ID, he will have the box ID of Matthew in the **ProxyID** custom field. This special value in Luke's record would be done programmatically in the data extract process. The publishing definition settings are shown in the next figure.

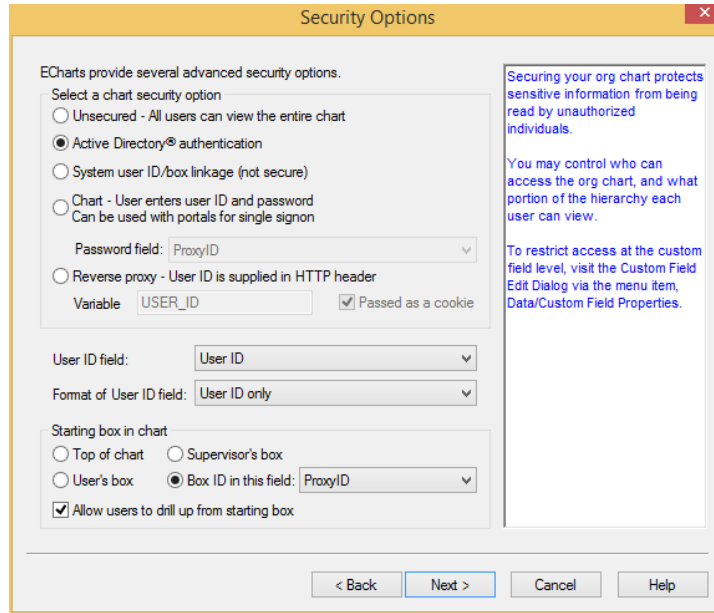


Figure 13.

The result shows the chart after Luke Franklin has logged in. Also shown are the **ProxyID** custom field values. Since Luke's **ProxyID** is set to a value of 1, after Luke authenticates to the chart he is able to view the chart from Matthew's point of view.

Management

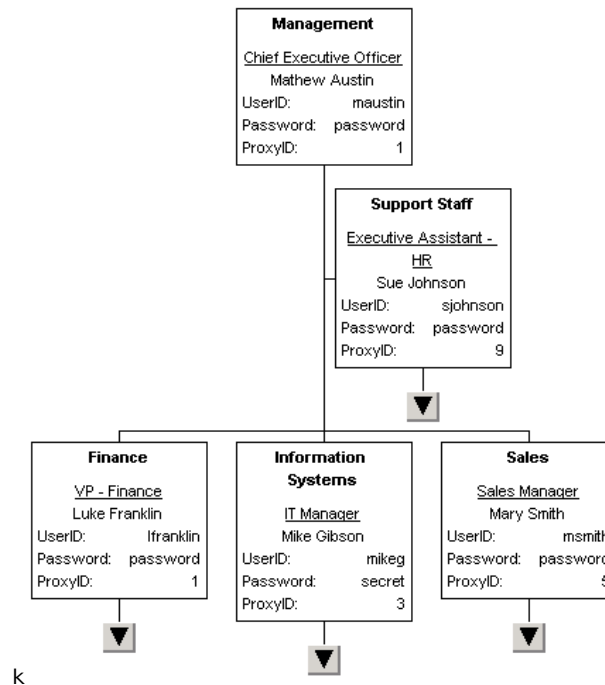


Figure 14.

Chart Authentication

The next figure shows that we have selected **Chart** user ID and password. To use this method of authentication, the user IDs and passwords must exist in separate custom fields in the chart. The field we have chosen to contain the user ID is **userid** and the password field is **password**.

The **Starting box in chart** option behaves the same way for **Chart** and **System user ID/box linkage** as it does for Microsoft Active Directory® authentication.

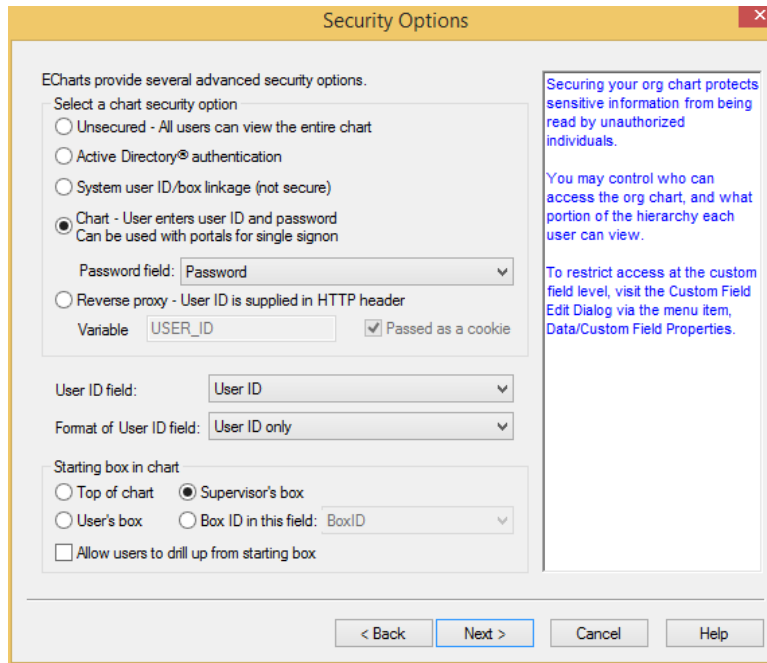


Figure 15.

With manual authentication, when a user accesses a chart, OrgPublisher prompts her for her user ID and password. If they enter a valid user ID and password, OrgPublisher opens the chart at the starting box defined by the publishing definition.



Figure 16.

EChart Thin Client Security

EChart Thin Client Security works in the same manner as Rich Client, with one important exception. With Thin Client security, you must manually login to access the chart, even when using Microsoft Active Directory® authentication.

If you don't want to be prompted for your user ID and password perform the following:

Note: The Web server must be running IIS. EChart thin client security does not work with Apache Web Server.

1. Click the **Start** button on the taskbar, select **Programs, Administrative Tools, and Internet Information Services**.

The *Internet Information Services* window opens.

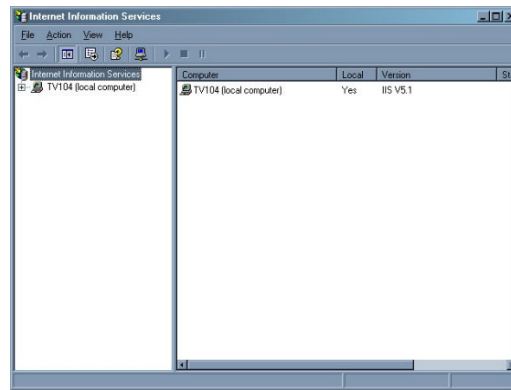


Figure 17.

2. Expand the (local computer) entry.
3. Expand the **Web Sites**, and **Default Web Site** entries.
4. Right-click **ECharts** and select **Properties** from the context menu.

The *ECharts Properties* dialog opens at the **Directory** tab.

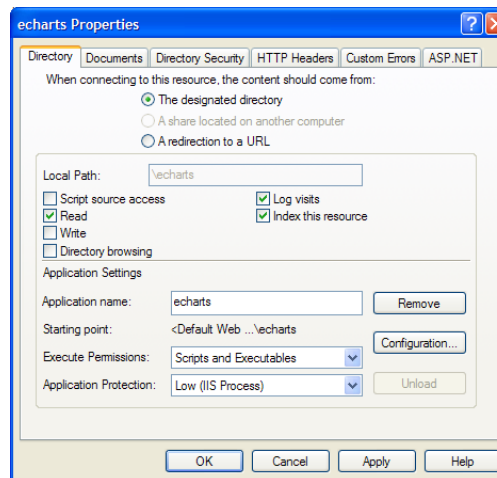


Figure 18.

5. Click **Create**.

The **Application Protection** and **Application name** fields become available.

6. Select **Low (IIS Process)** for **Application Protection**.
7. Click the **Directory Security** tab.

The *Directory Security* tab opens.

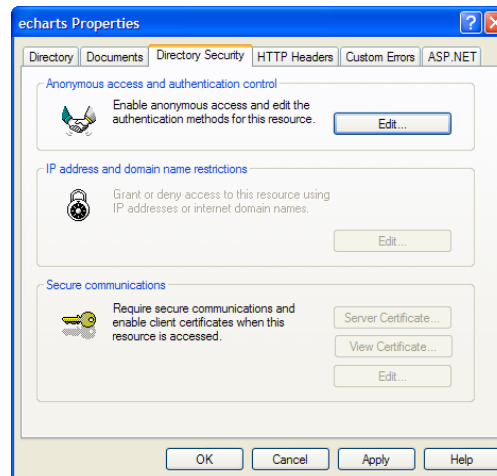


Figure 19.

8. Click **Edit** in the **Anonymous access and authentication control** section.

The *Authentication Methods* dialog opens.

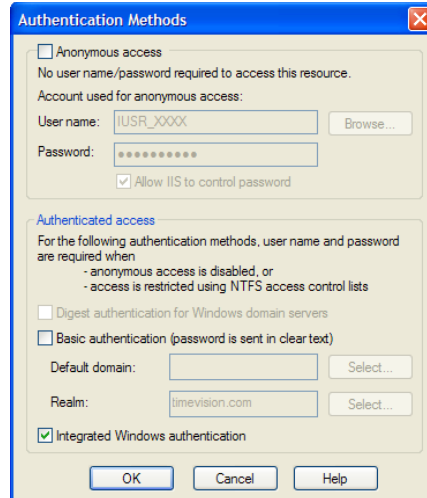


Figure 20.

9. Clear the **Anonymous access** check box.
10. Set the **Integrated Windows Authentication** check box.
11. Click **OK** to close the *Authentication Methods* dialog. Click **OK** again to close the *EChart Properties* dialog.
12. Close the *Internet Information Systems* window.

Selecting Role-based Toolbars

If you publish an EChart rich client, you can secure role-based toolbar buttons based on groups.

Note: If your chart contains only one group, the lock icons are automatically disabled.

1. Create any groups needed to secure toolbar buttons.
2. Create a publishing definition for an EChart rich client after selecting the **Advanced Mode** option in the *Publishing Wizard*.
3. When you reach the toolbar button selection dialog, open locks appear to the left of each securable button.
4. Click on the lock to display security options.
5. Right-click on the lock to display the available groups. Click to select individual groups or click on **(Select all groups)** to include all group results.



Figure 21.

6. After selection, the lock appears closed and the button displays a green filled check box indicating that it is available for the restricted viewing audience.

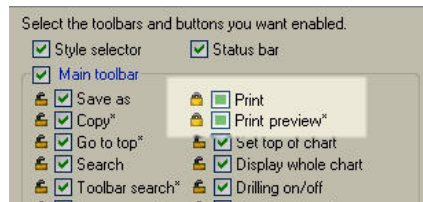


Figure 22.

Only users who are in the selected groups have access to the locked buttons when they access the published EChart.

EChart — Field Level (Role-based) Security Scenarios

EChart security also provides *field level* security. Field level security allows users to view information based on whether or not they are a member of a particular group.

For example, if you have a chart with salary information, you may want members of only the HR group to see the salaries. In such a case, use OrgPublisher to define a group called HR, based on whatever criteria in your data determines who is a member of HR. All other users are not members of HR.

The following chart shows two custom fields displayed: **Salary** and **HR**.

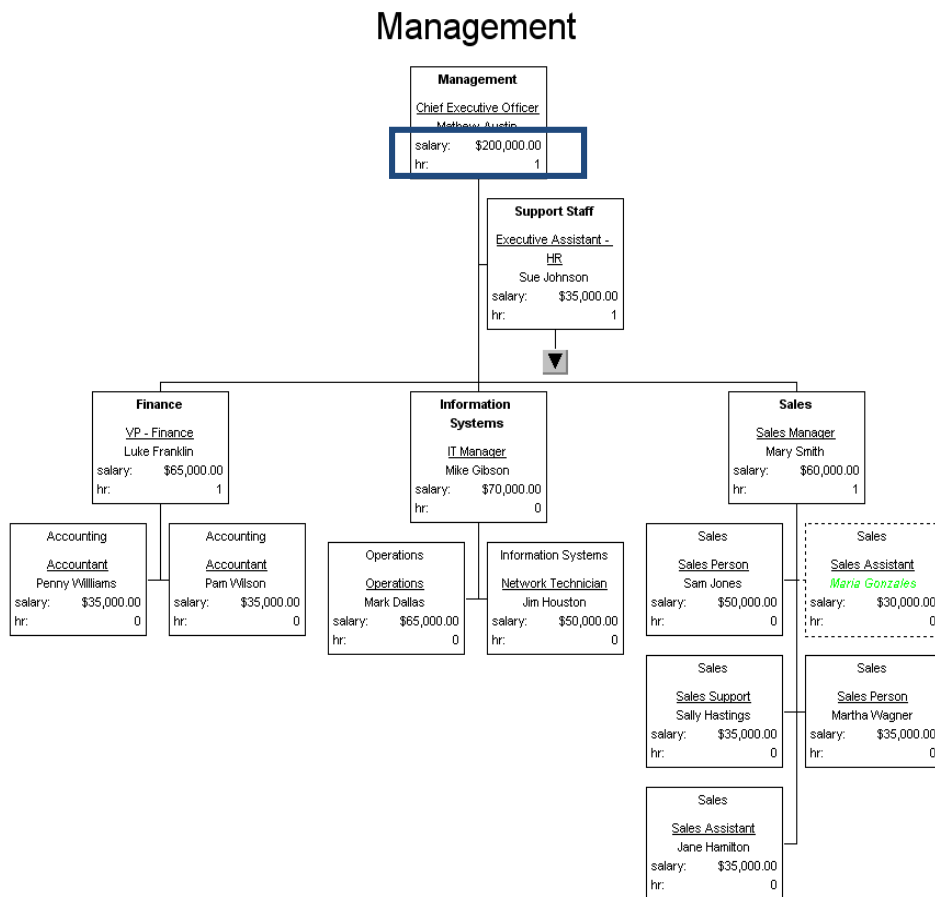


Figure 23.

The **HR** custom field indicates whether or not the person is a member of your HR group (1=yes; 0=no).

Using Groups to Create Field Level Security

Using OrgPublisher’s *Group Editor* dialog, you can search for and create a group. In this example, from the previous chart, there are four people that qualify for the HR group.

1. Save the group as **HR**.

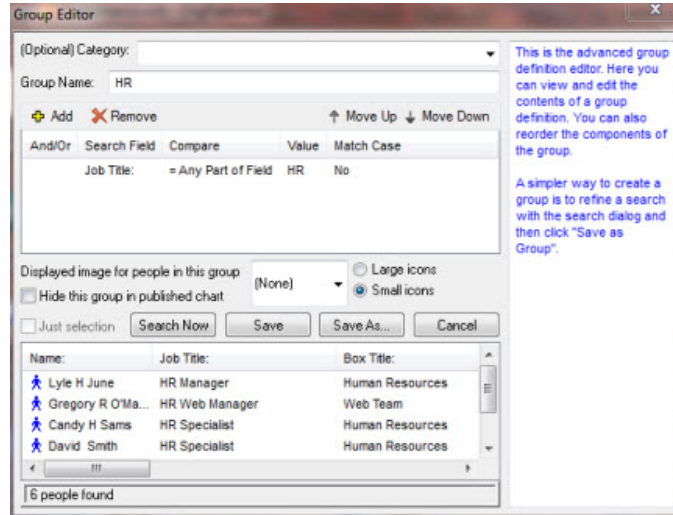


Figure 24.

2. Close the *Group Editor* dialog and select Custom field properties from the Data menu.

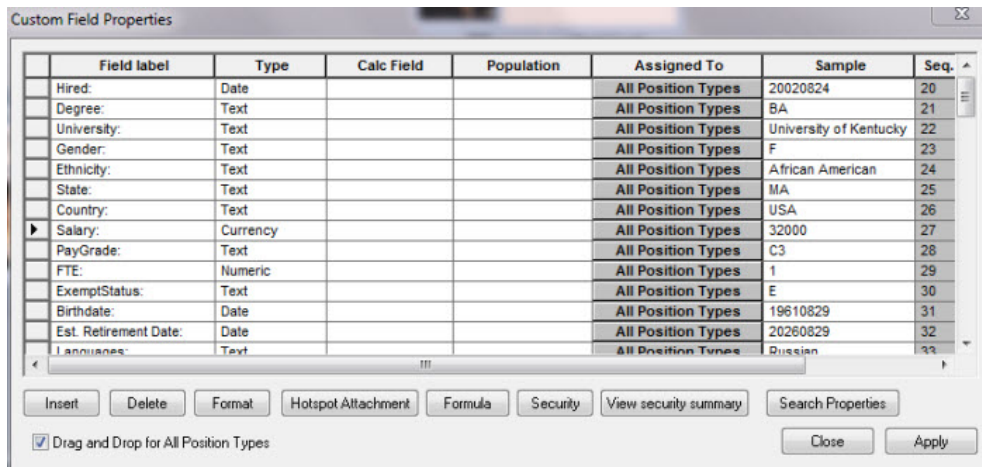


Figure 25.

3. Select the **Salary** field by clicking its gray row selector button.
4. Click **Security**.

The *Security* dialog opens.

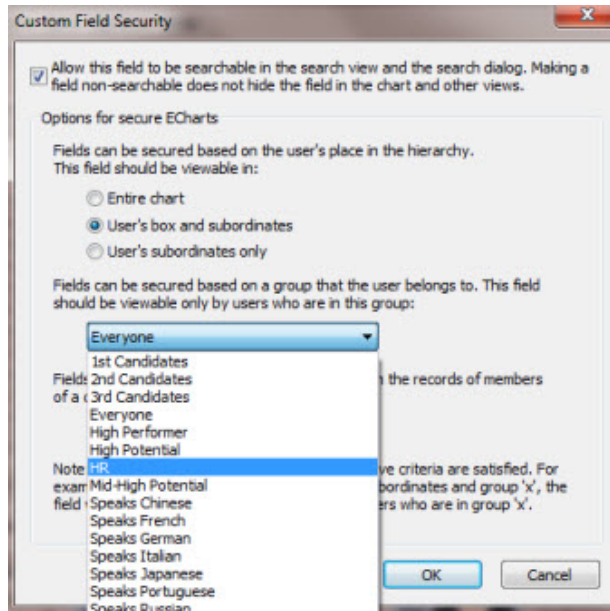


Figure 26.

5. Select the **Allow this field to be searchable** check box.
6. Select a visibility for the field: the **User's box and subordinates**, or for the **User's subordinates only** (selecting **Entire chart** will not hide the field).
7. Select HR from the drop-down list (selecting **Everyone** will not hide the field).
8. If you want to secure fields so that they are only visible in the records of the selected group, click the down-arrow and choose **HR**.

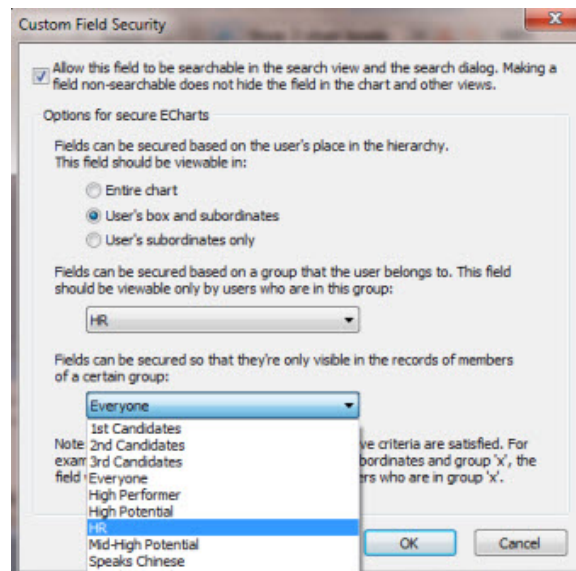


Figure 27.

- Click **OK** to close the *Security* dialog, and then click **Close** in the *Custom Field Properties* dialog.

In this scenario, Mike Gibson *is not* a member of the HR group. When he views the chart, he does not see salary information.

Management

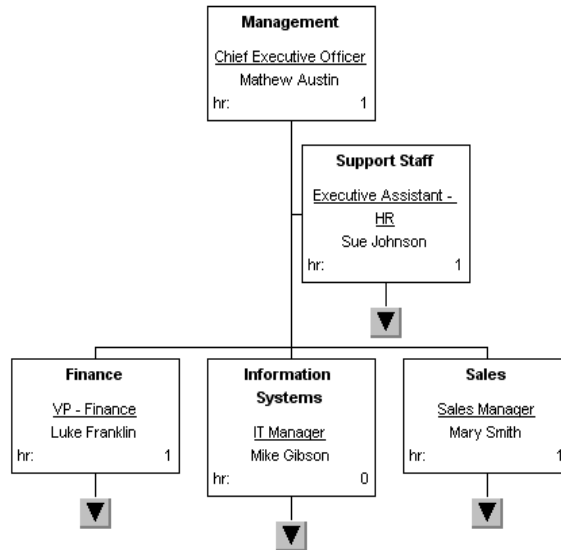


Figure 28.

Mary Smith *is* a member of the HR group. When she views the chart, she sees salary information. Note that she sees it throughout the entire chart. This is because when we set the security options in the *Custom Field Properties* dialog, we set the option to **Entire chart**.

Management

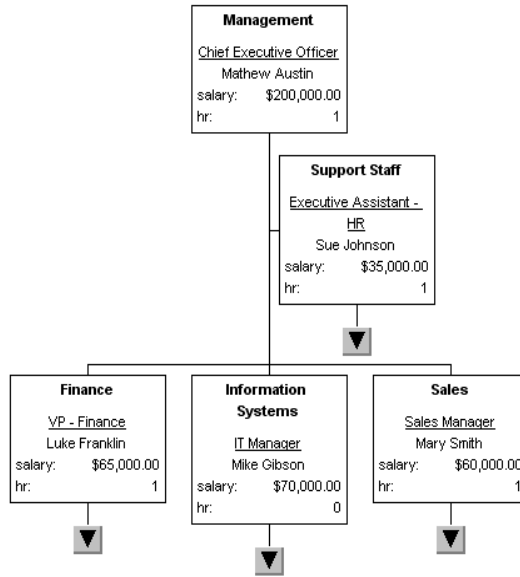


Figure 29.

Now we will limit Mary to seeing salary information for her and her subordinates only.

10. Open the *Custom Field Properties* dialog and select the **Salary** field.
11. Click **Security**.

The *Custom Field Security* dialog opens.



Figure 30.

12. Select the **Allow this field to be searchable** check box.
13. Select **User's box and subordinates**.

Click **OK** to close the *Custom Field Security* dialog, and then click **Close** in the *Custom Field Properties* dialog.

Now when Mary views the chart, she sees salary for only her and her subordinates, as shown in the following figure.

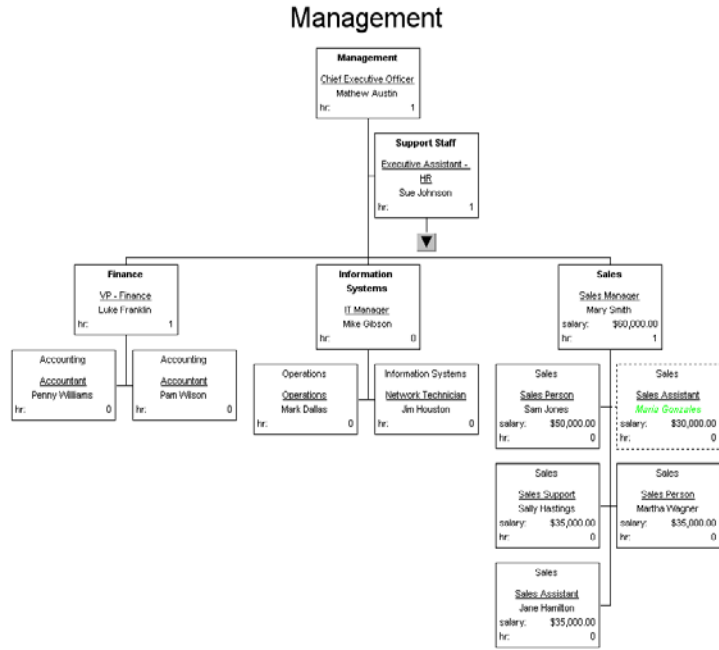


Figure 31.

EChart Style Security

With OrgPublisher 7 and later, EChart Rich Client security provides *style based* security. Style based security allows users to view different styles based on group membership.

For example, if you have a chart with salary information, you can create a style that shows only the salary information. Using the same scenario as in EChart — Field Level (Role-based) Security Scenarios above, you can set the HR group to view a style called **Secure**. Users in the HR group can then see the **Secure** style, while users not in the HR group cannot see that style.

To configure style based security:

1. Open the **File** menu and select **Styles**.

The *Styles* dialog opens.

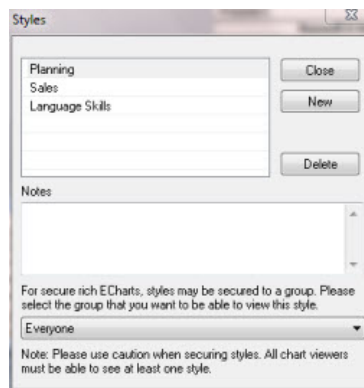


Figure 32.

2. Select the style in the upper pane that you want to restrict.
3. In the lower pane of the dialog, select the group from the drop-down list that can view the selected style in your secured rich EChart.

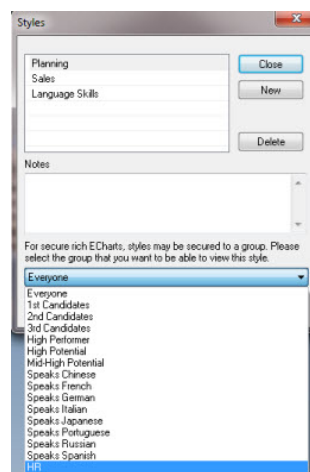


Figure 33.

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4. Click **Close**.

Style Based Security Scenarios

Mike Gibson is not a member of the HR group. When he views the chart, he sees only the **Normal** style, not the **Secure** style, as shown in the following.

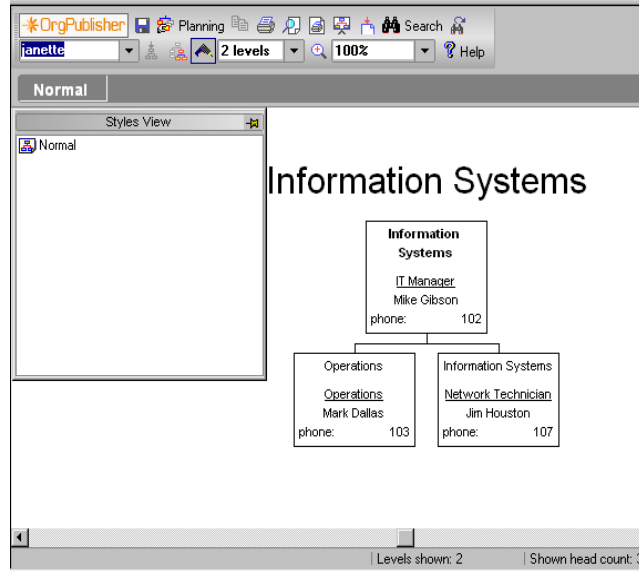


Figure 34.

Mary Smith is a member of the HR group. When she views the chart, she sees both the **Secure** style and the **Normal** style as shown in the following chart.

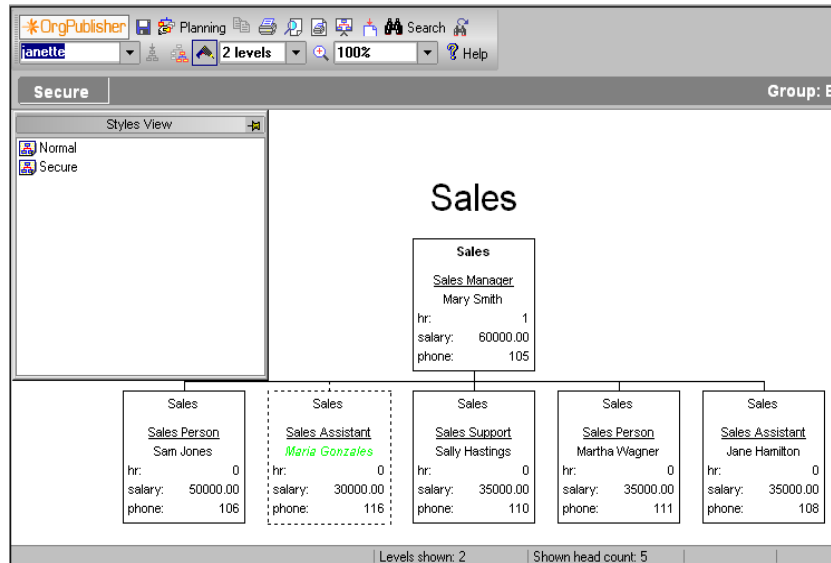


Figure 35.

OrgPlan Security (OrgPublisher Premier)

With OrgPublisher premier, you can work with web-enabled what-if planning charts. OrgPlan provides the ability to create and share organizational models. These charts contain separate menus from the standard published charts.

When a chart is published in OrgPublisher Premier with the **OrgPlan** feature enabled, end users can open the PluginX or EChart rich client chart and create a new Organizational modeling or Succession planning chart, or work with existing OrgPlan charts. The following figure indicates the *Publishing Wizard* dialog where the OrgPlan options are selected.

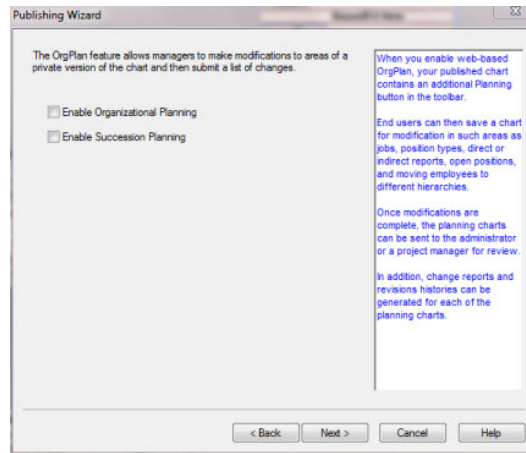


Figure 36.

Selecting either (or both) **Enable Organizational Planning** or **Enable Succession Planning** opens the *Planning Charts* dialog in the *Publishing Wizard*. This dialog allows additional selections, including password security.

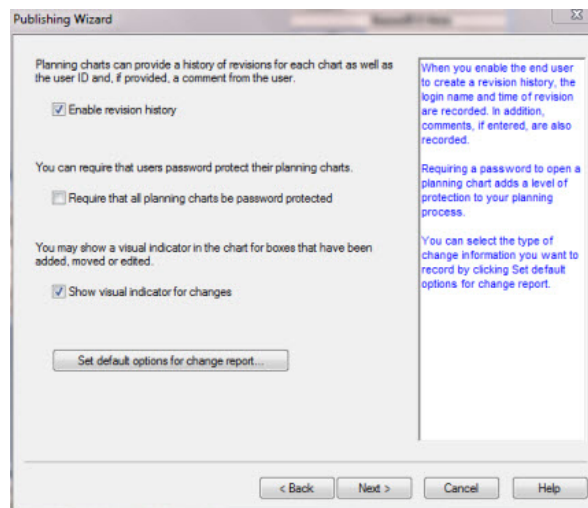


Figure 37.

Select whether or not users are required to use a password on any planning charts initiated by a user.

If you do not select this option, then setting a password for the OrgPlan chart is optional for the user creating or saving the chart.

Once you publish the planning-enabled chart, the following figure shows the *Create New Planning Chart* dialog.

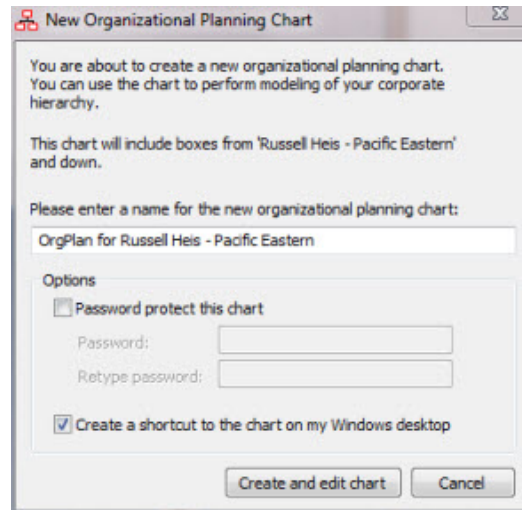


Figure 38.

The **Password Protect This Chart** option is available, which will require that this chart have a password. Once created, OrgPublisher prompts anyone attempting to open this planning chart for a password.

Securing OrgPublisher Executive for Apple iPad

When publishing employee data to OrgPublisher Executive, you can assign a PIN to access the application, require users to enter passwords and user IDs, and use the securing custom fields option in the OrgPublisher Custom Field Properties dialog.

Additionally, in the Publishing Wizard dialog noted below, securing the employee data published to iPad includes:

- **Require PIN** - requires users type your designated PIN that matches the PIN you enter in the OrgPublisher Executive Settings dialog
- **Chart** - User enters user ID and password - requires users type assigned user ID and approved password
- **Allow user to cache password** - allows users to set their iPad to remember their password if you have enabled that option in the OrgPublisher Executive Settings dialog

Figure 39.

In addition, OrgPublisher Executive uses the Apple® Keychain® security mechanism to store settings and user credentials. Data downloaded during the sync process is stored in an encrypted database on the iPad unit.