## CRM 2013 NEW FEATURES: JAVASCRIPT NOTIFICATIONS

CRM 2013 come with a set of new JavaScript functions that we can use for sending notifications to the user. There are form notifications and field notifications. Here's an example of a form notification at work...

The function below was registered on the OnSave event of my form. It notifies the user that a Save has occurred and timestamps the notification. I post 3 notifications to demonstrate the 3 different types available (error, warning and information):

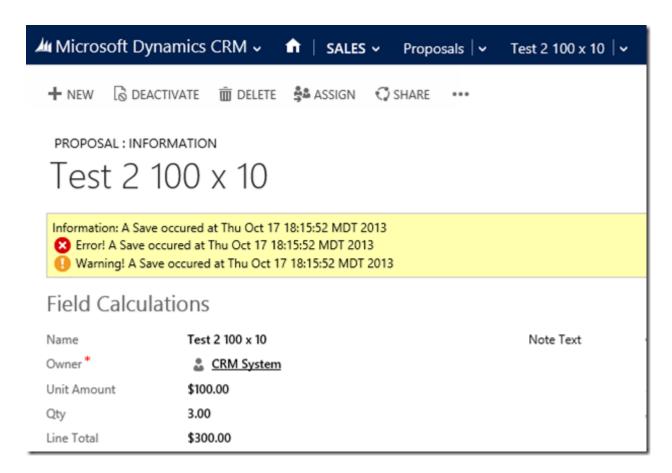
```
function NotifyOnSave() {
   var today = new Date();

  Xrm.Page.ui.setFormNotification('Error! A Save occured at ' + today, 'ERROR');

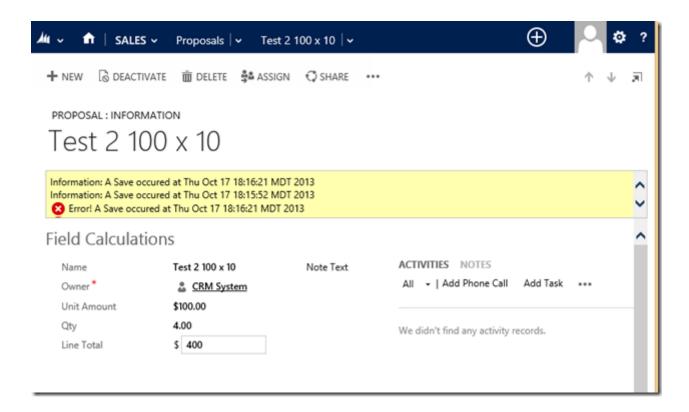
  Xrm.Page.ui.setFormNotification('Warning! A Save occured at ' + today, 'WARNING');

  Xrm.Page.ui.setFormNotification('Information: A Save occured at ' + today, 'INFORMATION');
}
```

Here's what appears after the Save:



Now, if I make another update and then let another Save occur this is what I get:



It's a little hard to tell on the screenshot but what has happened is each of those 3 notifications has been posted a second time to the form (note: the UI only shows 3 rows of notification, the user has to scroll down to see the other 6 notifications). The Information notification appears twice due to the sort order applied by the UI: Information notifications first, then Error notifications followed by Warning notifications. This is the default behavior of setFormNotification(). We have options though, we can assign each notification a unique ID and then we can overwrite a previous notification and avoid duplication in a scenario like this. Here's the revised JavaScript (note the unique ID added as 3rd parameter):

```
function NotifyOnSave() {
   var today = new Date();

  Xrm.Page.ui.setFormNotification('Error! A Save occured at ' + today,'ERROR','1');

  Xrm.Page.ui.setFormNotification('Warning! A Save occured at ' + today,'WARNING','2');

  Xrm.Page.ui.setFormNotification('Information: A Save occured at ' + today,'INFORMATION','3');
}
```

If you want to clear a notification you use clearFormNotification() and you identify the notification by its unique ID:

```
Xrm.Page.ui.clearFormNotification('1');
```

We also get field notification in CRM 2013. The syntax for these is:

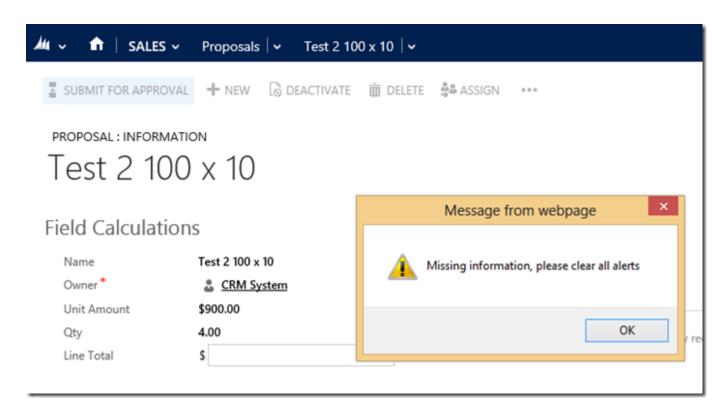
```
Xrm.Page.getControl(fieldName).setNotification(message);
```

Here's an example where I have added a SUBMIT FOR APPROVAL button to the Command bar on a CRM form and have added JavaScript validation to that button that generates field notifications if certain mandatory fields have not been populated. Here's the JavaScript:

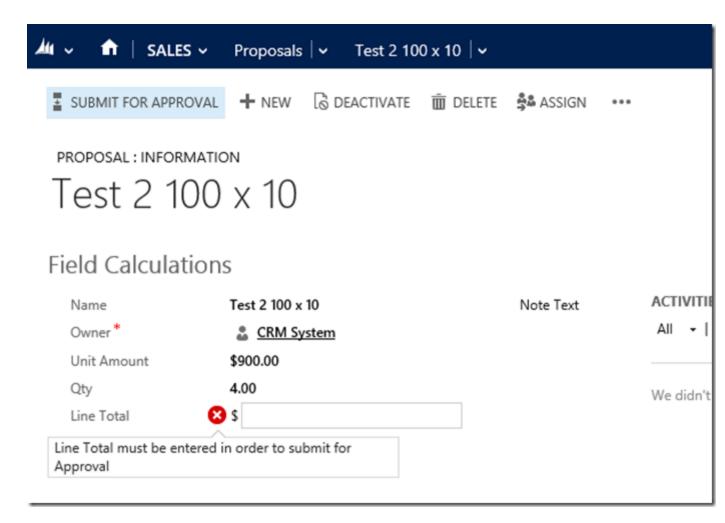
```
function SubmitForApproval() {
  var AlertRequired = false;
  if (Xrm.Page.data.entity.attributes.get("new_unitamount").getValue() == null) {
    Xrm.Page.getControl("new_unitamount").setNotification("Unit Amount must be
entered in order to submit for Approval");
    AlertRequired = true;
  }
  else {
    Xrm.Page.getControl('new unitamount').clearNotification();
  }
  if (Xrm.Page.data.entity.attributes.get("new_qty").getValue() == null) {
    Xrm.Page.getControl("new_qty").setNotification("Qty must be entered in order to
submit for Approval");
    AlertRequired = true;
  }
  else {
    Xrm.Page.getControl('new_qty').clearNotification();
  }
  if (Xrm.Page.data.entity.attributes.get("new_linetotal").getValue() == null) {
```

```
Xrm.Page.getControl("new_linetotal").setNotification("Line Total must be entered in order to submit for Approval");
    AlertRequired = true;
} else {
    Xrm.Page.getControl('new_linetotal').clearNotification();
} if (AlertRequired == true) {
    alert('Missing information, please clear all alerts');
} else {
    alert('Submitted!');
}
```

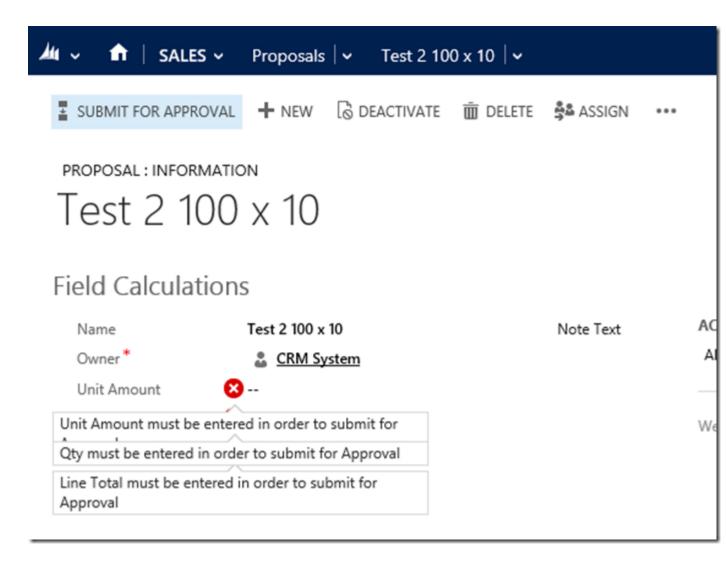
And here's how it looks when I test with missing data. First the Alert fires...



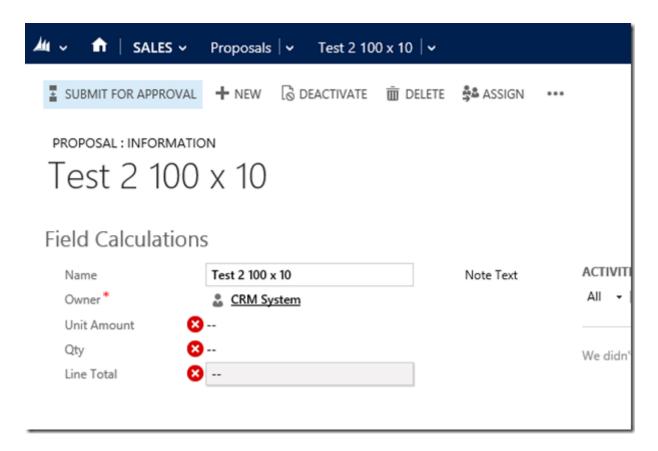
And then each field that failed a non-null test is flagged with an Alert icon and the notification text is displayed:



This starts to look a bit ugly when you generate notifications for neighboring fields:

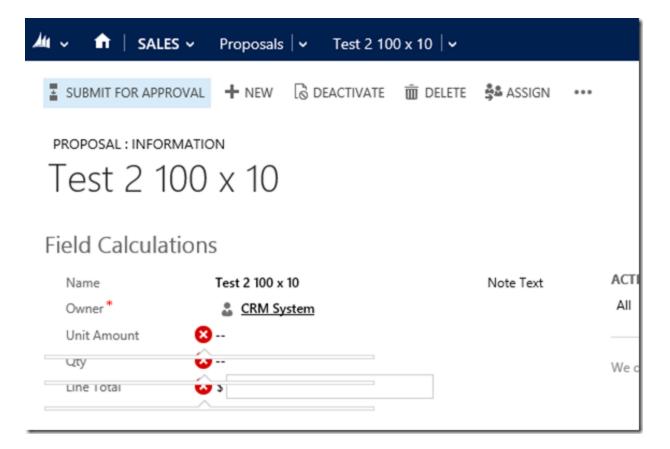


The notification text goes away once you mouse over the message, but the alert icon remains:



I wondered whether I could leave out the notification message and just get the alert icon to appear by just saying: Xrm.Page.getControl("new\_unitamount").setNotification();

Unfortunately, the notification speech bubble still appears so this is not a good approach:



I like the form notifications. I would try to minimize usage so that no more than 3 form notifications ever appear, any more and they just aren't visible enough.

I'm not sure I like the field notifications. I like the fact I can highlight fields with issues but I don't like the notification speech bubbles that appear. I guess it works well so long as notifications don't appear for adjacent fields. I would give this some consideration when deciding how to layout the fields.