Lotus Notes Calendar and Scheduling explained! Part 1

Nagendra Nyamgondalu

October 18, 2004

Calendar and Scheduling (C&S) is one of the most popular and widely used features in Lotus Notes. This two-part article series takes a close look at C&S and how its major components work together. In Part 1, we discuss the internal workflow of C&S, and how the preferences you select affect its functionality.

Try this someday: Ask a developer you know to describe Lotus Notes/Domino in a single word and quite likely the answer you'll get is "workflow." Workflow is the backbone of all the major collaborative features in Lotus Notes/Domino. This is especially true for Notes Calendar and Scheduling, also known as C&S.

An earlier developerWorks: Lotus article, "Saving time with Notes 6 Calendar and Scheduling," discussed all the new C&S features introduced in Lotus Notes 6. In this two-part article series, we take a closer look at how C&S works in Lotus Notes 6.5. Part 1 examines how C&S preferences work and how they affect C&S operation. We also discuss meeting functionality and the workflow behind it. Our goal is to leave you with a basic understanding of the workflow mechanisms in Notes 6.5 C&S, which can help you take full advantage of all that C&S has to offer. Familiarity with Notes C&S will help you understand some of the concepts we discuss, although you should be able to follow along even if you're new to C&S.

Notes C&S preferences

A calendar profile lets you set your C&S preferences. You can access your calendar profile by opening your calendar and choosing Tools - Preferences, and then clicking the Calendar & To Do tab. This tab consists of several subtabs, each of which contains a number of C&S-related options. For example, the Basics tab lets you choose the defaults for new calendar entries and add personal categories to the standard list of categories already available. The categories added here show up in the options for the Categorize field in any new calendar entry.

The Display tab has a number of options that control the appearance of your calendar. For instance, the “Beginning of the work day” and “End of the work day” choices determine the hours displayed in the scheduler details in a calendar entry. The maximum number of hours that can be displayed are 10, and the start time is determined by the “Beginning of the work day” value. This means that if the beginning of the work day is defined as 8:00 AM and the end of the work day is 8:00 PM, the scheduler shows details for 8:00 AM to 6:00 PM:
The Display tab also has options to decide how calendar entries and notices appear in mail views and folders. For example, the option “Put C&S documents in a special New Notices MiniView for processing” displays the MiniView, a feature introduced in Lotus Notes 6. And the “Remove meeting invitations from your Inbox after you have responded to them” option automatically removes the clutter of accepted meeting invitations from your Inbox.

The Scheduling tab (Figure 2) allows you to set up your schedule and its associated options. The options Day of week and Time together determine the hours during which you are available for meetings. (You can still schedule meetings or have other entries in your calendar outside these hours, but you appear as unavailable if another user checks your availability for scheduling meetings with you in a time slot outside of your available hours.)
In addition, you can change your time zone to one other than the local time zone set in your computer's operating system. And the Check for conflicts options instruct Lotus Notes to warn you if you are adding a calendar entry that conflicts with an existing one in your calendar. (If you select this option, you can also have Lotus Notes warn you if an entry is outside your work hours.)

The Alarms tab includes a switch to turn alarms on or off, and options for selecting specific alarms for each type of calendar event. On the To Do tab, you can choose whether or not to display To Do entries on your calendar and whether or not Lotus Notes should update the status of To Dos. If you have an eye for color coding schemes, the Colors tab lets you organize your calendar entries by color. (We will discuss the Autoprocess tab in Part 2 of this article series.)

The Access & Delegation tab lets you control who has access to your mail, calendar, and free-time information. For example, the Access to Your Mail & Calendar subtab (Figure 3) allows you to provide other users access to your calendar. You can open your mail file to everyone or select the people or groups who have access and decide whether or not to allow access to all mail, calendar, and To Do entries or only calendar and To Do entries. You can then fine-tune the level of permissions they get by selecting the actions that they can perform: read, create, edit, or delete entries.
Figure 3. Access to Your Mail & Calendar tab

The Access to Your Schedule tab lets you decide who gets to check your availability. Unless there are compelling reasons to choose otherwise, it is standard practice to allow everyone to check your availability, especially if you expect to be invited to meetings (and who doesn’t?). You can, however, limit the details of your schedule information available to other users by selecting from the “What schedule information they may see” options.

Now that we have a perspective on all the preferences available to you, we can march on to examine some real workflow. Of course, that can only mean meetings.

Meetings, meetings, meetings!

The workflow processes in C&S are primarily designed for scheduling meetings. Meetings can be broadly classified into two types: single-instance (non-repeating) meetings and multiple-instance (repeating) meetings. When the chair creates the meeting in her calendar, she can make it a repeating meeting by checking the Repeats option. This brings up a dialog box where the chair can choose the start date, end date, and frequency of the meeting. If the proposed meeting needs to repeat on specific dates rather than on a regular pattern (such as weekly or monthly), the chair can create a custom repeating meeting and choose the specific dates.

For a single-instance meeting, Lotus Notes creates a document in the chair’s calendar and emails a notice document to each invitee, room, or resource (if the chair has reserved any). For a repeating meeting, there are two documents created in the chair’s mail file: a parent document (which is not visible on the calendar) and a response document (which is visible on the calendar for all the dates that the meeting has been scheduled).

An invitee to a meeting has the choice of accepting it, declining it, delegating it to another person, proposing a new time, accepting or declining tentatively, or requesting more information about the meeting. If the chair has requested a room or a resource, the request can be accepted or declined...
by the resource owner (if there is one) or by the autoprocessor. All responses from the invitees and rooms are emailed back to the chair and appear as response documents to the original meeting document (or parent document in the case of repeating meetings) in the chair’s mail file. Figure 4 illustrates this process:

**Figure 4. C&S workflow**

![C&S workflow diagram](image)

As you can see, documents are the primary vehicle for C&S workflow in Lotus Notes/Domino.

**Invitee status**

When you schedule a meeting, in addition to required invitees, you can also select optional invitees in the Optional (cc) field and send an FYI to invitees in the FYI (bcc) field. The invitees in the FYI (bcc) field can add the meeting to their calendars, but do not have any options on their meeting invitation to respond. You can look up the list of invitees who are attending by highlighting the meeting in your calendar and selecting Owner Actions - View Invitee Status. This displays the list of all required and optional invitees and their current response status, which can be Accepted, Declined, Tentative, Countered, Delegated to someone else, or No response, depending on the response (or lack of one) from the invitee. This also displays the response status of any rooms or resources requested. If an invitee has requested more information, his status will show as No response.

You have the option of sending an email to all the invitees, only to the ones who have responded, or only to those who have not responded. This can be particularly useful if there are a large number of invitees and you need to correspond with only a subset of them. There are also situations in which you prefer not to have any responses from the invitees, such as an invitation to an open-to-all seminar. In these cases, you can send out a broadcast instead of a regular meeting invite, by selecting “I do not want to receive replies from participants" in the Delivery Options while scheduling the meeting or by inviting everyone as FYI invitees.
Accept

When an invitee chooses to accept an invitation to a single-instance meeting, the invitation is converted to a meeting document. This document is displayed both in the Calendar view and in the Inbox, unless the invitee has checked the preference “Remove meeting invitations from your Inbox after you have responded to them.” For a repeating meeting, the invitation is converted to the parent document (which does not display in the Calendar view) and a new instance document is created as a response to it (which displays in the Calendar view, but not in the Inbox).

The invitee’s acceptance also generates a notice and sends it to the chair’s mail file. Lotus Notes creates a reschedule notice from the chair as a response to the original meeting document in the invitee’s mail file. For a repeating meeting, the notice appears as a response to the parent document. When the invitee accepts the reschedule notice from the chair, the meeting document is updated to reflect the change. If the chair has included comments in the notice by choosing “Include additional comments on notice” when rescheduling, the notice shows up with a circled “i” next to it:

Figure 5. Notice with comments included

If you open a reschedule notice before responding to the original invitation, Lotus Notes offers the option of opening the invitation first. If there is more than one notice that you have not responded to, then opening an earlier notice displays a warning that the meeting has been rescheduled (again) with a choice to open the latest notice. This is the behavior for a single-instance meeting. For a repeating meeting, opening any of the notices results in a prompt with three choices: continue opening the notice, open the oldest unprocessed notice, or automatically process all the notices for you. The last option is usually the recommended one because it applies all the changes in order. That way you will not have to go through each notice.

Figure 6. Multiple reschedules to be applied for a repeating meeting

You can also accept an invitation or a reschedule notice tentatively. This adds the meeting to your calendar, but does not book busy time, which is the equivalent of “penciling in” a calendar entry. Therefore, you appear available for the duration of the meeting. (We will look into how this works internally in Part 2 of this article series.) You also have the option of accepting a meeting that has previously been tentatively accepted, thereby booking your time for the duration of the
meeting. You can even accept meetings or instances of a repeating meeting that have already been declined by finding the particular meeting or repeating meeting instance in your Meetings view and choosing the Accept (or Tentatively Accept) option.

If the chair sent the meeting invitation as a broadcast, then the only option you have is Add to calendar. This has the same effect as accepting a regular meeting invitation, except that there is no notice sent to the chair. So if you do not want to attend the meeting, you can ignore or delete the broadcast invitation.

Decline

If you decline a meeting invitation, a notice is sent to the chair’s mail file, and the meeting invitation gets a thumbs-down sign in your mail file. You can opt to receive further updates about the declined meeting by checking the “Keep me informed of updates” option. If the chair reschedules or updates the meeting, you get a reschedule notice and can respond to it. If you accept the reschedule, the original meeting invitation (if a single-instance meeting) is converted to a meeting document. If you deleted the original meeting invitation after declining it, Lotus Notes offers to recreate it for you. For a repeating meeting, you can decline specific instances of the meeting and choose to receive updates for those instances. This can be useful in cases where a key attendee cannot attend one or more instances of the meeting. If a critical invitee chooses to receive updates for the declined instances, the chair (who needs to ensure that this invitee attends all the meetings) can reschedule those instances and the invitee can then accept the reschedule notice.

You can accept meetings or instances of a repeating meeting that have been declined by finding the meeting or instance in the Meetings view and choosing Accept. You can also decline meetings or instances that have already been accepted by simply deleting them from your calendar – it has the same effect as using the decline action. On a related note, when you delete meeting invitations or notices from the Inbox, Lotus Notes presents a dialog box of options to make sure that meetings are not deleted by accident. You can choose to continue and delete it or remove it from the Inbox only.

Propose new time

When invited to a single-instance meeting, you can request a different date or time if the current one does not suit your schedule (unless the chair has chosen Prevent counter-proposing in the Delivery Options while scheduling the meeting). By selecting the Propose new time action, you can send the chair a counter notice with a new date and time. The meeting invitation in your Inbox is converted to a notice that states, “You have countered this invitation.” If the chair accepts the change, Lotus Notes sends a reschedule notice to all the invitees. If the chair declines the change, Lotus Notes sends a notice to the invitee who proposed the change, displaying it as a response to the counter notice in her Inbox.
For a repeating meeting, you do not have the Propose new time option on a new invitation. However, you can propose a new time for one or more instances of repeating meetings that are already in your calendar or when responding to reschedule notices from the chair. The instances for which you propose a new time are removed from your calendar, but are visible in the Meetings view. They are re-added to your mail file if the chair accepts the counter and you accept the resulting reschedule or if you withdraw your proposal by accepting the countered instances.

**Delegate**

An invitee to a meeting can choose to delegate the meeting to another person (unless the chair has chosen Prevent delegating in the Delivery Options while scheduling the meeting). This can be useful in cases where invitees who are unable to attend the meeting want to request another person to substitute for them. For instance, if you are invited to a project status meeting that conflicts with a doctor’s appointment that you need to keep, you can request another to attend the meeting in your place by delegating the meeting invitation.

When you select Delegate as the response to a meeting invitation, you are prompted to select the person it should be delegated to. This chosen user receives the meeting invitation, and the chair receives a notice that you have delegated to another user. You can delegate a meeting that is already in your calendar – for a repeating meeting you can even delegate specific instances. Lotus Notes removes the meeting or the specific instances from your calendar when it is delegated. Any further notices from the chair for this meeting are sent to the delegated user. The notices are also sent to the original invitee if he chose to receive future updates when delegating. However, he cannot act on these notices because he has delegated the meeting.

The delegated user’s response to the meeting invitation is sent to the original invitee also (apart from the chair) so that he can know if his delegation was accepted. If the delegated user chooses to decline the meeting, she is presented with a dialog box informing her that if she declines the meeting, the original invitee will not have the choice of delegating it to someone else who may be able to attend. So she is given the choice of declining or returning control of the meeting back to the original invitee.
Figure 8. Delegated user has chosen to decline

Requesting more information

You can request more information about a meeting at any point in time. You are prompted to enter your question/comments when you click the Request Information button. This sends a note to the chair as a notice of request for more information. The chair can then respond with comments.

Rescheduling

If the chair reschedules a meeting, Lotus Notes mails reschedule notices to all invitees, rooms, and resources. If you decline the meeting invitation but choose to receive future updates, the reschedule notice is dispatched to your Inbox too. Prior to Lotus Notes 5, each instance of a repeating meeting had its own document. This is no longer the case. However, even in the current release of Lotus Notes, the instance document of a repeating meeting can be split into multiple documents if the chair reschedules some instances. Consider a repeating meeting that repeats once a week for five weeks. If the chair advances the first and second instance by an hour, the single response document for all five instances is now split into two response documents: one for the first and the second instance and another for the remaining instances.

If a room or resource request is declined for one or more instances during a reschedule, the chair may remove that room or resource from those instances of the meeting and possibly select another one. Changing a room or resource for a meeting is also treated as a reschedule, and reschedule notices are emailed to all the invitees. If the chair adds an invitee to the meeting at a later point in time, Lotus Notes sends a new invitation notice to the new invitee only. If the meeting is a repeating one, but the new invitee is invited only for one instance, the meeting is still saved with a repeating meeting structure in the invitee's mail file if he accepts it. So the meeting will have a parent document and an instance document as its response. This is because the meeting has already been flagged as a repeating one in the chair's mail file. The chair can also remove invitees from the meeting at any point, but any previous responses from the removed invitee remain in the meeting structure.
In a "disparate" repeating meeting (one in which some instances have been rescheduled to a different time or date), an attempt to reschedule all instances together can produce unexpected results. Lotus Notes takes the path of mathematical logic to ensure an unambiguous response in all cases. For example, suppose that you schedule a repeating meeting for five consecutive days in a single week from 2:00 PM to 2:30 PM. You then reschedule the first instance (Monday) by choosing the Just this instance option when rescheduling, scheduling the meeting to run from 2:15 PM to 2:45 PM. You then highlight the first instance and reschedule the start time to 2:30 PM and end time to 3:00 PM. To do this, select All Instances when prompted to select which instances the change should be applied to. Lotus Notes presents a dialog box to you stating that the reschedule will be applied as a relative shift of the same amount of time for all instances:

The reschedule results in the first instance being scheduled from 2:30 to 3:00 PM and the other four instances from 2:15 to 2:45. So, what happened here? All the instances did not have the same time; therefore, the reschedule was interpreted as “shift the start time and end time by 15 minutes for all instances.” So the first instance went from 2:15-2:45 to 2:30-3:00, and the other instances went from 2:00-2:30 to 2:15-2:45.

Resource Reservations database

Rooms and resources are very similar to invitees in that they can receive meeting invitations and reschedule notices and can accept or decline them. This is handled through the Resource Reservations database. This is a mail-in database that is typically created by a Domino administrator using the standard Resource Reservations template. Any rooms or resources added
to this database are registered as mail-in databases in the Domino Directory. This means that when a chair requests a room or resource for a meeting, the notice that is emailed to the room or resource is routed to the Resource Reservations database.

If the room or resource is specified as one that has one or more owners and the chair is not among them, the reservation request is deposited in the Resource Reservations database and awaits approval. Lotus Notes sends a notice to the owner(s) stating that a reservation request awaits approval and sends mail to the chair stating that the request has been forwarded to the owner(s). In Part 2 of this article series, we will look into the approval process for a reservation request for a room or resource that does not have an assigned owner (or has the chair listed as an owner) when we discuss autoprocessing.

When a reservation request is awaiting approval from an owner, it appears in the Waiting for approval view of the Resource Reservations database. If the room or resource is available for the requested date and time and the owner chooses to approve the request, the reservation request is converted to an actual reservation. You can then view it in Reservations by date, Reservations by resource, or Calendar views; it is no longer displayed in the Waiting for approval view. In the case of a repeating meeting, an actual reservation document is created for each instance of the repeating meeting. (There is no parent-child document hierarchy in the Resource Reservations database for repeating meeting reservations except for ones manually created in the reservations database.) As always, an approval notice is sent to the chair’s Inbox.

In the Resource Reservations database, apart from the reservation instances, a few remnant reservation documents are left behind which are seen only in the hidden ($Reservations) view. The Purge Documents agent in the Resource Reservations database purges these along with the actual reservation instance documents. For example, if the request is declined by an owner, a decline notice is sent to the chair, and the reservation request is left behind in the Resource Reservations database, visible in the ($Reservations) view. The Purge Documents agent purges these declined reservation requests. When an owner declines a reservation request, the request is moved to the Declined folder. If the chair reschedules a meeting and the owner declines the request, Lotus Notes deletes the existing reservation and moves the request to the Declined folder.

Conclusion

In this article, we looked at how several major components of Notes Calendar and Scheduling work, including preferences settings and meeting functionality. In the conclusion to this series, we'll examine other C&S features, including Schedule Manager, autoprocessing, and To Dos. We'll also offer a number of tips and suggestions for troubleshooting C&S issues.