

# **Introducing DDM™ Interface**

**VERSION 1.4.0**

Copyright© 2000-2004 by OOO HitMedia  
**All rights reserved.**

## **Copyright Information And Acknowledgements**

DPSP, Dynamic PSP and DPSP-Forms are trademarks of N-Networks

DPSP Interpreter, DPSP System Units and this document are Copyright© 2000-2002 by N-Networks

Oracle is a registered trademark of Oracle Corporation.

PL/SQL, Oracle8i, Oracle9i, Oracle Internet Server, Oracle WebServer and Oracle WebServer Option are trademarks of Oracle Corporation.

Sun, Sun Microsystems, the Sun Logo and Java are trademarks or registered trademarks of Sun Microsystems Inc. in United States and other countries.

Other company or product names are mentioned for identification purposes only and may be service marks, trademarks, or registered trademarks of their respective owners.

Although every effort was taken to make this document as accurate and complete as possible, no guarantees whatsoever are given in regard to document's accuracy and completeness. In addition, no guarantees are given that this document fully covers the functionality of the product it describes.

Information in this document is subject to change without notice. Please consult the change log in release notes accompanying the product for changes in current product release.

## About Dynamic Document Management system (DDM™)

DDM modules (Tasks, Appointments, etc.) communicate with the Server by sending and receiving XML-documents through HTTP. You can find detailed descriptions of XML-document formats in Appendices. Please note that these formats are of interest for you only when you want to develop your own server side for DDM.

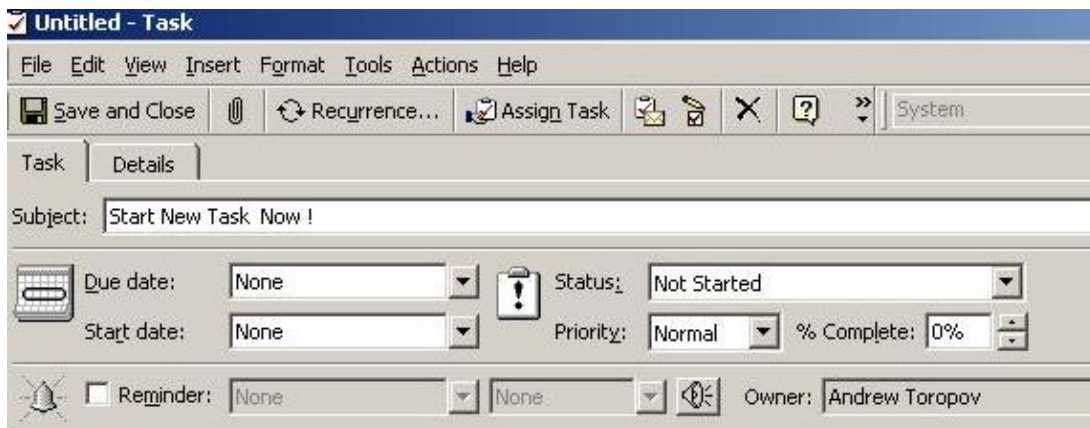
The communication is commonly bi-directional. Sending information from DDM Client to Server is called "upload", while receiving information from the Server is called "download". As an option, you can disable uploading; in this case, the communication becomes uni-directional, and your DDM Client works in read-only mode: you can obtain information from the Server, but you cannot change the information on the Server.

Here we describe upload and download processes using DDM Tasks module as an example; interfaces of other DDM modules are quite similar. Detailed information can be found in Appendices.

### Uploading to Server

Upload process starts:

- (1) When you create a new Task and hit "Save and Close" button.



- (2) When you change the existing one and hit "Save and Close" button.

## Dynamic Document Management system™ (DDM™)

In both cases, MS Outlook DDM Client module will send http request "multipart/form-data" with XML-document as its body. The following is an example of such an XML-document:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Tasks for="scott">
  - <Task GlobalID="432539" TimeStamp="2003.9.19 17:45:16"
    EntryID="00000009221A6F776949C46B770C9FE8A63D62864FC2300" Marked="0">
    <ActualWork>0</ActualWork>
    - <BillingInformation>
      - <![CDATA[ ]]>
    </BillingInformation>
    - <Body>
      - <![CDATA[ ]]>
    </Body>
    - <CardData>
      - <![CDATA[ ]]>
    </CardData>
    - <Categories>
      - <![CDATA[ ]]>
    </Categories>
    - <Companies>
      - <![CDATA[ ]]>
    </Companies>
    <Complete>0</Complete>
    - <ContactNames>
      - <![CDATA[ ]]>
    </ContactNames>
    - <Contacts>
      - <![CDATA[ ]]>
    </Contacts>
    <DateCompleted>4501.1.1 0:0:0</DateCompleted>
    <DueDate>2003.9.19 0:0:0</DueDate>
    <Importance>1</Importance>
    - <Mileage>
      - <![CDATA[ ]]>
    </Mileage>
    <NoAging>0</NoAging>
    <Ordinal>-1832000</Ordinal>
    <Owner>Andrew Toropov</Owner>
    <PercentComplete>0</PercentComplete>
    <ReminderSet>0</ReminderSet>
    <ReminderTime>2003.9.19 17:45:0</ReminderTime>
    <ReminderOverrideDefault>0</ReminderOverrideDefault>
    <ReminderPlaySound>0</ReminderPlaySound>
    - <ReminderSoundFile>
      - <![CDATA[ ]]>
    </ReminderSoundFile>
    - <Role>
      - <![CDATA[ ]]>
    </Role>
    <Sensitivity>0</Sensitivity>
    <StartDate>2003.9.19 0:0:0</StartDate>
    <Status>0</Status>
    - <StatusOnCompletionRecipients>
      - <![CDATA[ ]]>
    </StatusOnCompletionRecipients>
    - <StatusUpdateRecipients>
      - <![CDATA[ ]]>
    </StatusUpdateRecipients>
    - <Subject>
      - <![CDATA[ ]]>
    </Subject>
    <TeamTask>0</TeamTask>
    <TotalWork>0</TotalWork>
    <UnRead>0</UnRead>
  </Task>
</Tasks>
```

## Dynamic Document Management system™ (DDM™)

After creation of a new Task using MS Outlook you can see a new record in the Server data. Check it using your browser with the following URL:

<http://scott.tiger@www.dynamicpsp.com/dpsp/forms/!go?In=MainFormsPage>

http://www.dynamicpsp.com/dpsp/forms/!go?

Welcome, Scott Tiger

Start New Task Now !

Start New Task Now ! (#432544) < Specifications

name Start New Task Now !

category DDM Tasks

DDM Tasks

**Subject** Start New Task Now !

**Executor** Andrew Toropov

StartDate January 01 4501 00 00 00

DueDate January 01 4501 00 00 00

Status Not Started

Importance Normal

PercentComplete 0

Body Start New Task Now !

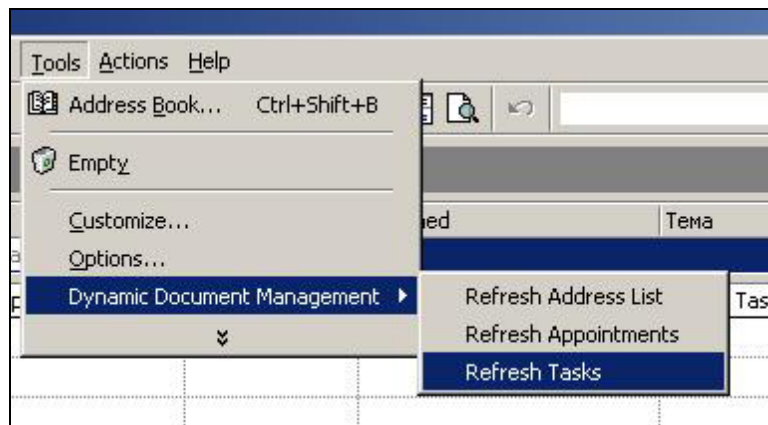
Main  
Advanced S  
Forums  
My Folders

Exit

## **Downloading from Server**

Downloading process starts:

1. when you hit menu item "Tools | Dynamic Document Manager | Refresh Tasks"



## Dynamic Document Management system™ (DDM™)

2. when you enable Auto refresh option for DDM Tasks (“Tools | Options | DDM Tasks”) by setting non-zero number of minutes. If this value is zero, then Auto refresh option is disabled.

The image shows a screenshot of the 'Options' dialog box, specifically the 'DDM Tasks' tab. The dialog box has a title bar with a question mark and a close button. The main area contains several sections:

- DDM Tasks:** A checked checkbox.
- User name:** A text box containing 'scott'.
- Password:** A text box with masked characters 'xxxxxx'.
- always ask for password:** An unchecked checkbox.
- Auto refresh:** A spin box set to '5' followed by 'min.'.
- Language:** A dropdown menu set to 'English'.
- URL:** A text box containing 'http://www.dynamicpsp.com/dsp/forms/ddm\$pub.pub?Dom\_=DDMTasksDemo'.
- Submit URL:** A checked checkbox followed by a text box containing 'http://www.dynamicpsp.com/dsp/forms/ddm\$pub.submit?Dom\_=DDMTasksDe'.

At the bottom right, there are three buttons: 'OK', 'Cancel', and 'Apply'.

## After Refresh data from Server

When data is refreshed, the Client is sending a request for information to the Server using URL like this:

[http://scott.tiger@www.dynamicpsp.com/dpsp/forms/ddm\\$pub.pub?Dom =DDMTasksDemo](http://scott.tiger@www.dynamicpsp.com/dpsp/forms/ddm$pub.pub?Dom =DDMTasksDemo)

and the Server will answer with an XML-document like this:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <!-- Generated by Dynamic Documents Manager at 24.09.2003 14:45 -->
- <Tasks for="scott" category="165">
  <Task GlobalID="432542" TimeStamp="2003.09.24 14:45:24"
    EntryID="000000009221A6F776949C46B770C9FE8A63D62844FD2300"
    Marked="1" />
  -<Task GlobalID="432540" TimeStamp="2003.09.24 14:45:24"
    EntryID="000000009221A6F776949C46B770C9FE8A63D62804FD2300">
    <Importance>1</Importance>
    <ReminderTime>2003.09.25 08:00:00</ReminderTime>
    <PercentComplete>0</PercentComplete>
    <StartDate>2003.09.25 00:00:00</StartDate>
    <Owner>Andrew Toropov</Owner>
    <ReminderSet>1</ReminderSet>
    <TotalWork>0</TotalWork>
    <Sensitivity>0</Sensitivity>
    <ActualWork>0</ActualWork>
    <DueDate>2003.09.25 00:00:00</DueDate>
  - <Subject>
    - <![CDATA[ Scott's Task ]]>
    </Subject>
    <Status>1</Status>
  </Task>
</Tasks>
```



# Appendix 1 – DDM Tasks Interface

## XML-document syntax

```
<?xml version="1.0" encoding="UTF-8" ?>
<Tasks for="scott">
  <Task GlobalID="106"
    TimeStamp="2003.9.8 12:16:57"
    EntryID="0000000088114D5004EC024D9FA5C3E83D1CAACE84E22200"
    Marked="0">
    <ActualWork>0</ActualWork>
    <BillingInformation><![CDATA[]]></BillingInformation>
    <Body><![CDATA[go away]]></Body>
    <CardData><![CDATA[]]></CardData>
    <Categories><![CDATA[]]></Categories>
    <Companies><![CDATA[]]></Companies>
    <Complete>0</Complete>
    <ContactNames><![CDATA[]]></ContactNames>
    <Contacts><![CDATA[]]></Contacts>
    <DateCompleted>4501.1.1 0:0:0</DateCompleted>
    <DueDate>2003.9.3 0:0:0</DueDate>
    <Importance>1</Importance>
    <Mileage><![CDATA[99 miles from L.A.]]></Mileage>
    <NoAging>0</NoAging>
    <Ordinal>-45000</Ordinal>
    <Owner>S.Ageshin</Owner>
    <PercentComplete>25</PercentComplete>
    <ReminderSet>0</ReminderSet>
    <ReminderTime>4501.1.1 0:0:0</ReminderTime>
    <ReminderOverrideDefault>0</ReminderOverrideDefault>
    <ReminderPlaySound>0</ReminderPlaySound>
    <ReminderSoundFile><![CDATA[]]></ReminderSoundFile>
    <Role><![CDATA[]]></Role>
    <Sensitivity>0</Sensitivity>
    <StartDate>2003.8.14 0:0:0</StartDate>
    <Status>1</Status>
    <StatusOnCompletionRecipients><![CDATA[]]></StatusOnCompletionRecipients>
    <StatusUpdateRecipients><![CDATA[]]></StatusUpdateRecipients>
    <Subject><![CDATA[go!]]></Subject>
    <TeamTask>0</TeamTask>
    <TotalWork>0</TotalWork>
    <UnRead>0</UnRead>
    <Attachments>
      <Attachment>
        <Source>Task_106_1.jpg</Source>
        <DisplayName>Army Downsizing</DisplayName>
        <Position>1</Position>
        <Type>1</Type>
      </Attachment>
    </Attachments>
  </Task>
</Tasks>
```

The same XML-document format is used for both uploading and downloading information. The only difference is that in downloaded XML-document tag <Source> under <Attachment> contains URL by which it is possible to obtain Attachment body.

## Field names and Types

Name in Outlook API	Name in XML-document	Type
(.EntryID)	EntryID = "..."	String(48)
(.LastModificationTime)	TimeStamp = "..."	Date/Time
-	Marked = "..."	0: Normal 1: Deleted
.ActualWork	<ActualWork>	Long integer
.BillingInformation	<BillingInformation>	String
.Body	<Body>	String
.CardData	<CardData>	String
.Categories	<Categories>	String
.Companies	<Companies>	String
.Complete	<Complete>	Boolean
.ContactNames	<ContactNames>	String
.Contacts	<Contacts>	String
.DateCompleted	<DateCompleted>	Date/Time
.DueDate	<DueDate>	Date/Time
.Importance	<Importance>	0: Low 1: Normal 2: High
.Mileage	<Mileage>	String
.NoAging	<NoAging>	Boolean
.Ordinal	<Ordinal>	String
.Owner	<Owner>	String
.PercentComplete	<PercentComplete>	Long integer
.ReminderSet	<ReminderSet>	Boolean
.ReminderTime	<ReminderTime>	Date/Time
.ReminderOverrideDefault	<ReminderOverrideDefault>	Boolean
.ReminderPlaySound	<ReminderPlaySound>	Boolean
.ReminderSoundFile	<ReminderSoundFile>	String
.Role	<Role>	String
.Sensitivity	<Sensitivity>	0: Normal 1: Personal 2: Private 3: Conditional
.StartDate	<StartDate>	Date/Time
.Status	<Status>	0: Not Started 1: Task In Progress 2: Task Complete 3: TaskWaiting 4: Task Deferred
.StatusOnCompletionRecipients	<StatusOnCompletionRecipients>	String
.StatusUpdateRecipients	<StatusUpdateRecipients>	String
.Subject	<Subject>	String
.TeamTask	<TeamTask>	Boolean
.TotalWork	<TotalWork>	Long integer
.UnRead	<UnRead>	Boolean

## Appendix 2 – DDM Appointments interface

### XML-document syntax

```
<?xml version="1.0" encoding="UTF-8" ?>
<Appointments for="scott">
  <Appointment GlobalID="106"
    TimeStamp="2003.9.11 12:16:57"
    EntryID="0088114D5004EC024D9FA5C3E83D1CAACE84E22200"
    Marked="0">
    <AllDayEvent> 0 </AllDayEvent>
    <BillingInformation><![CDATA[]]></BillingInformation>
    <Body><![CDATA[]]></Body>
    <BusyStatus> 2 </BusyStatus>
    <Categories><![CDATA[]]></Categories>
    <Companies><![CDATA[]]></Companies>
    <ConferenceServerAllowExternal>0</ConferenceServerAllowExternal>
    <ConferenceServerPassword> qqq </ConferenceServerPassword>
    <Duration> 200 </Duration>
    <Start> 2003.9.11 09:00:00 </Start>
    <End> 2003.9.12 18:00:00 </End>
    <Importance> 1 </Importance>
    <IsOnlineMeeting> 0 </IsOnlineMeeting>
    <Location> 99 miles from l.A. </Location>
    <MeetingStatus> 0 </MeetingStatus>
    <Mileage><![CDATA[99]]></Mileage>
    <NetMeetingAutoStart> 0 </NetMeetingAutoStart>
    <NetMeetingDocPathName> </NetMeetingDocPathName>
    <NetMeetingOrganizerAlias> </NetMeetingOrganizerAlias>
    <NetMeetingServer> </NetMeetingServer>
    <NetMeetingType> 0 </NetMeetingType>
    <NetShowURL> </NetShowURL>
    <NoAging> 1 </NoAging>
    <OptionalAttendees> </OptionalAttendees>
    <ReminderMinutesBeforeStart> 30 </ReminderMinutesBeforeStart>
    <ReminderSet> 0 </ReminderSet>
    <ReminderOverrideDefault> 0 </ReminderOverrideDefault>
    <ReminderPlaySound> 0 </ReminderPlaySound>
    <ReminderSoundFile><![CDATA[]]></ReminderSoundFile>
    <ReplyTime> 2003.9.12 12:00:00 </ReplyTime>
    <RequiredAttendees> </RequiredAttendees>
    <Resources> </Resources>
    <ResponseRequested> 0 </ResponseRequested>
    <Sensitivity> 0 </Sensitivity>
    <Subject><![CDATA[ go! ]]></Subject>
    <UnRead> 0 </UnRead>
    <Attachments>
      <Attachment>
        <Source>Appointment_106_1.jpg</Source>
        <DisplayName> Army Downsizing </DisplayName>
        <Position> 1 </Position>
        <Type> 1 </Type>
      </Attachment>
    </Attachments>
  </Appointment>
</Appointments>
```

## Field names and Types

Outlook API	XML-document	Type
-	GlobalID = "..."	Long integer
(.EntryID)	EntryID = "..."	String(48)
(.LastModificationTime)	TimeStamp = "..."	Date/Time
-	Marked = "..."	0: Normal 1: Deleted
.AllDayEvent	<AllDayEvent>	Boolean
.BillingInformation	<BillingInformation>	String
.Body	<Body>	String
.BusyStatus	<BusyStatus>	0: Free 1: Tentative 2: Busy 3: Out Of Office
.Categories	<Categories>	String
.Companies	<Companies>	String
.ConferenceServerAllowExternal	<ConferenceServerAllowExternal>	Boolean
.ConferenceServerPassword	<ConferenceServerPassword>	String
.Duration	<Duration>	Long integer
.Start	<Start>	Date/Time
.End	<End>	Date/Time
.Importance	<Importance>	0: Low 1: Normal 2: High
.IsOnlineMeeting	<IsOnlineMeeting>	Boolean
.Location	<Location>	String
.MeetingStatus	<MeetingStatus>	0: Non Meeting 1: Meeting 3: Received 5: Canceled
.Mileage	<Mileage>	String
.NetMeetingAutoStart	<NetMeetingAutoStart>	Boolean
.NetMeetingDocPathName	<NetMeetingDocPathName>	String
.NetMeetingOrganizerAlias	<NetMeetingOrganizerAlias>	String
.NetMeetingServer	<NetMeetingServer>	String
.NetMeetingType	<NetMeetingType>	0: Net Meeting 1: Net Show 2: Chat
.NetShowURL	<NetShowURL>	String
.NoAging	<NoAging>	Boolean
.OptionalAttendees	<OptionalAttendees>	String
.ReminderMinutesBeforeStart	<ReminderMinutesBeforeStart>	Long integer
.ReminderSet	<ReminderSet>	Boolean
.ReminderOverrideDefault	<ReminderOverrideDefault>	Boolean
.ReminderPlaySound	<ReminderPlaySound>	Boolean
.ReminderSoundFile	<ReminderSoundFile>	String
.ReplyTime	<ReplyTime>	Date/Time
.RequiredAttendees	<RequiredAttendees>	String
.Resources	<Resources>	String
.ResponseRequested	<ResponseRequested>	Boolean
.Sensitivity	<Sensitivity>	0: Normal 1: Personal 2: Private 3: Conditional
.Subject	<Subject>	String
.UnRead	<UnRead>	Boolean

## Appendix 3 – DDM AddrList interface

### XML-document syntax

```
<AddrList for="Username">  
  <AddrEntry EntryID="..." GlobalID="..." TimeStamp="..." Marked= "..." >  
    <Address> e-mail address </Address>  
    <Name> full username </Name>  
  </AddrEntry>  
  .  
  .  
  .  
</AddrList>
```

### Field names and Types

Outlook API	XML-document	Type
.Email1Address	<Address>	String
.FullName	<Name>	String

## Types

**Boolean**

values may be presented as follows:

True: 1 or Y

False: 0 or N

**Date/Time**

values are presented as strings of the following format: "YYYY.MM.DD HH24:MI:SS"

**String**

values may be presented as both Text-nodes or CDATASection-nodes.