

Dollar Universe Calendar Extension

Version 1.4

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1 Introduction

The default Calendars for Dollar Universe 5.6 end on December 31st, 2015. Customers continuing to use Dollar Universe 5.6 will need to extend their Calendars beyond 2015 to ensure that jobs will continue processing past 2015.

This document describes steps to be taken in Dollar Universe to extend the General Calendar beyond year 2015. It should be noted that this document applies only to Dollar Universe 5 and Dollar Universe 5 Nodes that have been upgraded to Dollar Universe version 6.

New installations of Dollar Universe version 6 do not have the same Calendar date limitation.

2 Requirements and Pre-Requisites

Dollar Universe Application Server version 5.6
Dollar Universe Application Server version 6, upgraded from version 5

For Nodes which have been upgraded from Dollar Universe version 5 to Dollar Universe version 6, the minimum version required to update a Calendar via the command line or by using our script is Dollar Universe v6.3.01.

Before modifying any Calendar, we recommend you to backup all Calendars on all concerned Nodes. Use the following command to extract the Calendar definition from the command line:

```
uxext cal <AREA> MU=* output=<FILENAME>
```

3 General Rules/Behaviors

Dollar Universe scheduled Tasks will cease running if the Calendar does not exist for the period jobs are attempting to run (or forecast). For example, if a job is attempting to run on January 1st, 2016, but the Calendar ends on December 31st, 2015 the job will end with an error. Here is an example of the error message that would appear in the Universe.log:

```
0031711/uxcal /GACALC32 /134450698 - %UNI_-E-U_EGACALC3209, Year out of Calen
```

Recommended Method:

Using the UniViewer Console to modify the Calendar is the preferred and recommended method, particularly for critical production Nodes.

When?

The Calendar update should be done when no production is running (or only few jobs to limit the impact).

Warnings:

- *Updating Tasks:*

In some instances, after modifying the Calendar from the command line or with the scripts, scheduled launches will only run once and do not get rescheduled. Tasks will need to be updated for them to be rescheduled properly. Please note that if a launch has already been executed and if we are still in its launch window when the Task is updated, the job will be re-executed. In order to avoid any double executions, you can stop the Launcher before modifying the calendar. Then, you can control the Job Runs to check for possible double executions and removing any unwanted execution. Once finished, the Launcher can be restarted.

- *Updating Launches:*

If some Launches generated by Tasks were modified manually before the Calendar modification, these Launches will not be updated and after the Calendar updated, you will have a new Launch generated.

- *Autorelaunch Task in v6:*

In Dollar Universe v6, for autorelaunch Tasks, if the auto relaunch windows is still opened after the Calendar modification, this modification will be taken into account only for the next launch. The current launch (already calculated) is postponed for the next launch windows. Because it can be the day after we recommend to monitor these autorelaunch Tasks.

5 How-To

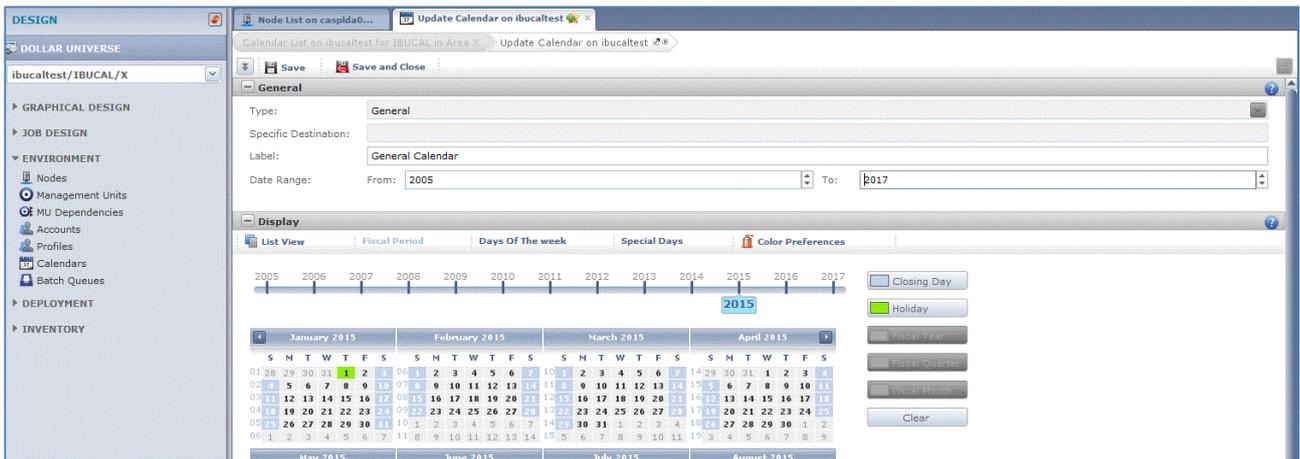
There are several methods with which a Calendar can be updated. Using the UniViewer Console is the preferred and recommended method, particularly for critical production Nodes.

5.1 From UniViewer Console

This is the Automic recommended method for updating the Calendar.

5.1.1 For one Calendar

To update Calendar dates from the console, select the Node you wish to modify in Design Mode and then navigate to Environment -> Calendars. In the "Date Range" section, increase the year value in the "To" section by at least two more years, as shown in the sample screenshot below.



As there is a limitation of a maximum of 25 years for which a Calendar can span, when updating a Calendar to add years, you may need to adjust the "Start" year, so that you can extend the Calendar with additional years beyond 2015.

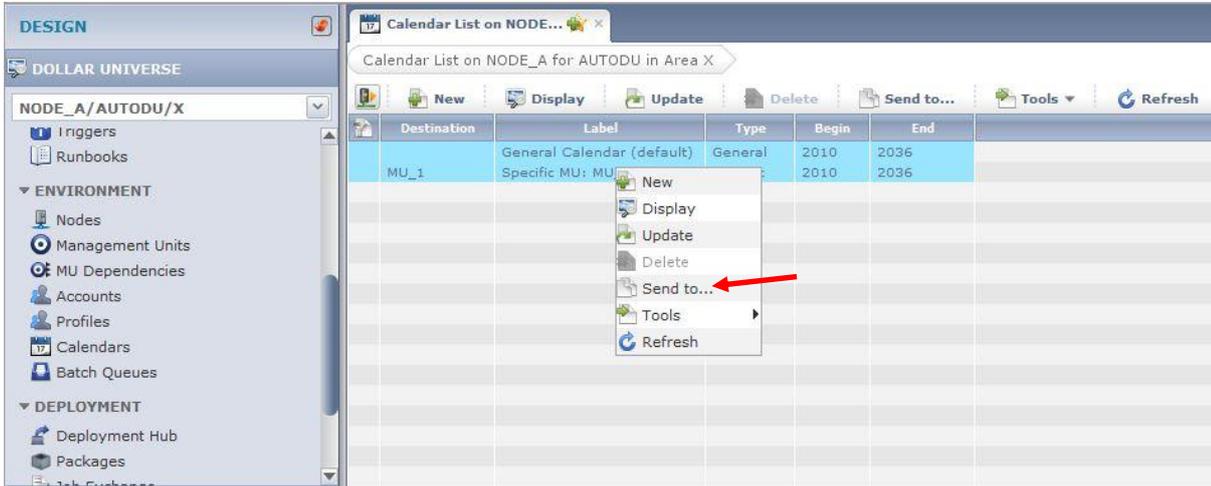
By default, when adding years to a Calendar, Monday to Friday are working days and Saturdays and Sundays are closing days. Holidays and other special days required for the added years will need to be added manually.

Please also note that if the Calendar is extended beyond 2020, the closed days and holidays will not be displayed for years over 2020. This is a known issue and will be corrected in a later version of Dollar Universe.

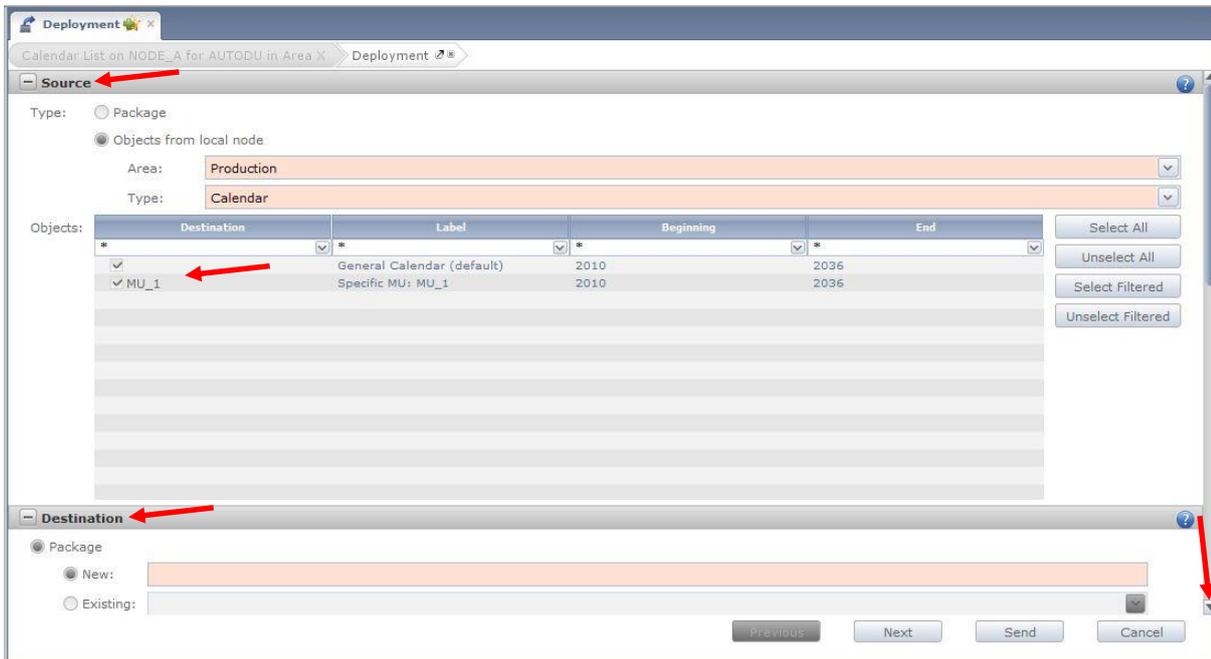
5.1.2 For multiple Calendars: use deployment

Once you have modified your Calendar as suggested in the previous step 5.1.1, you can deploy it on your different Nodes:

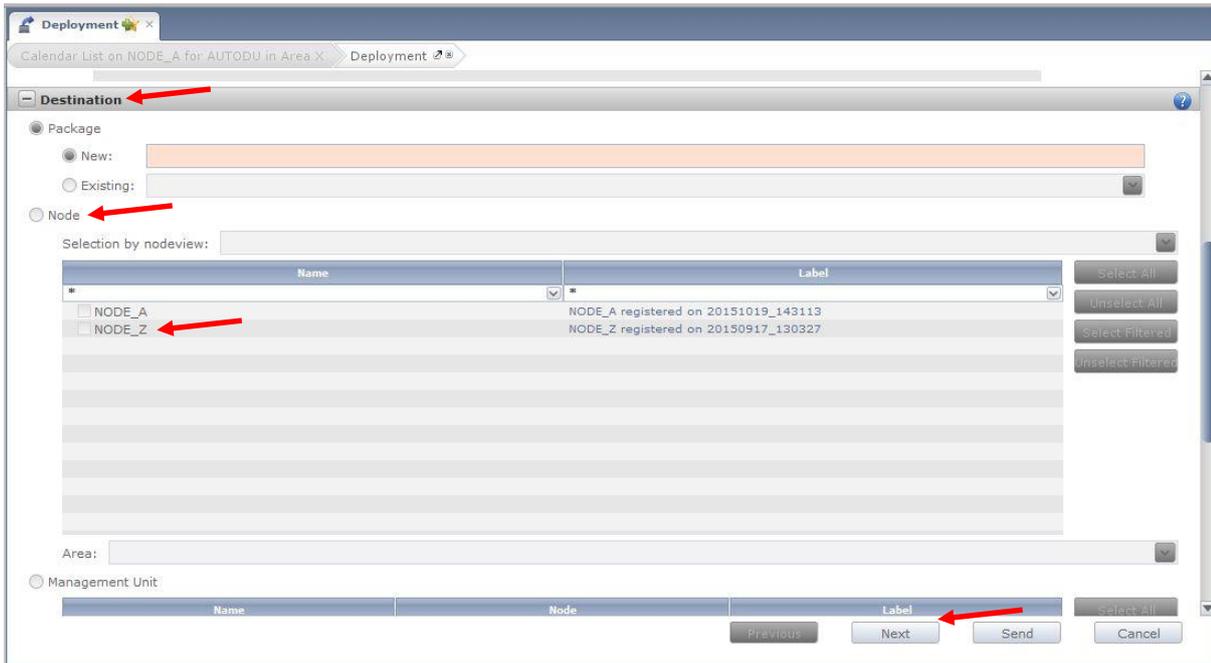
First select the updated Calendars, right click and select “Send to”



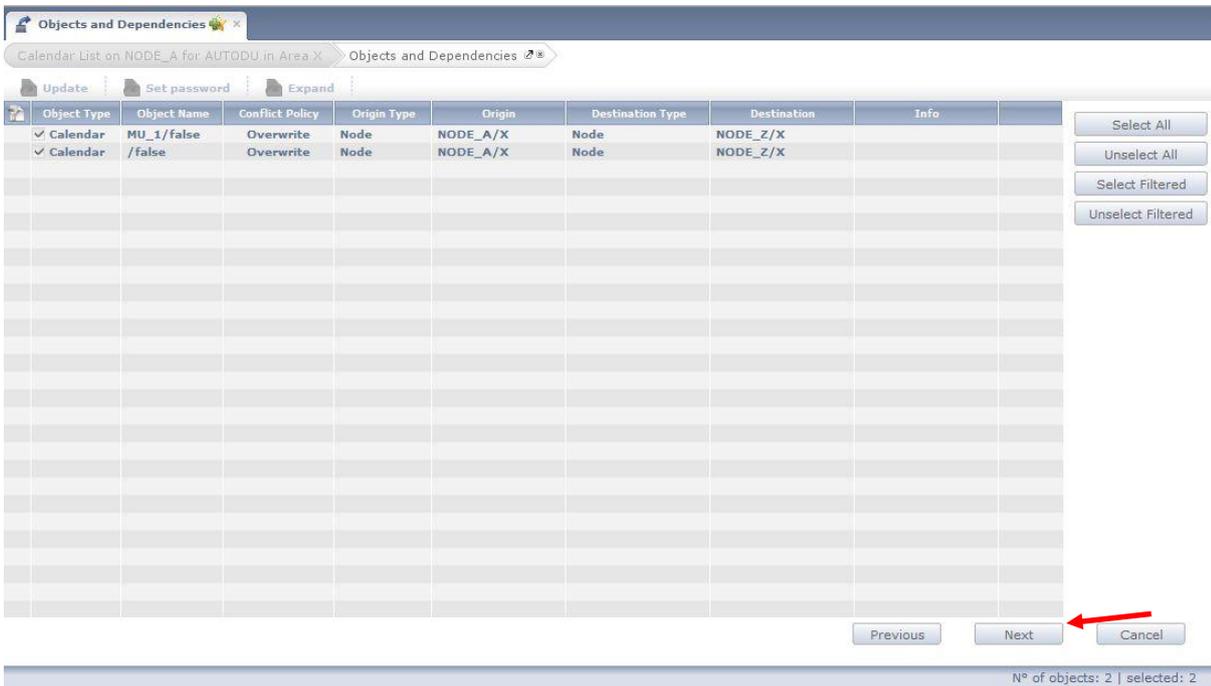
A deployment tab is opened and you can see that your Calendars are already defined as Source. Scroll down to have the destination part completely displayed:



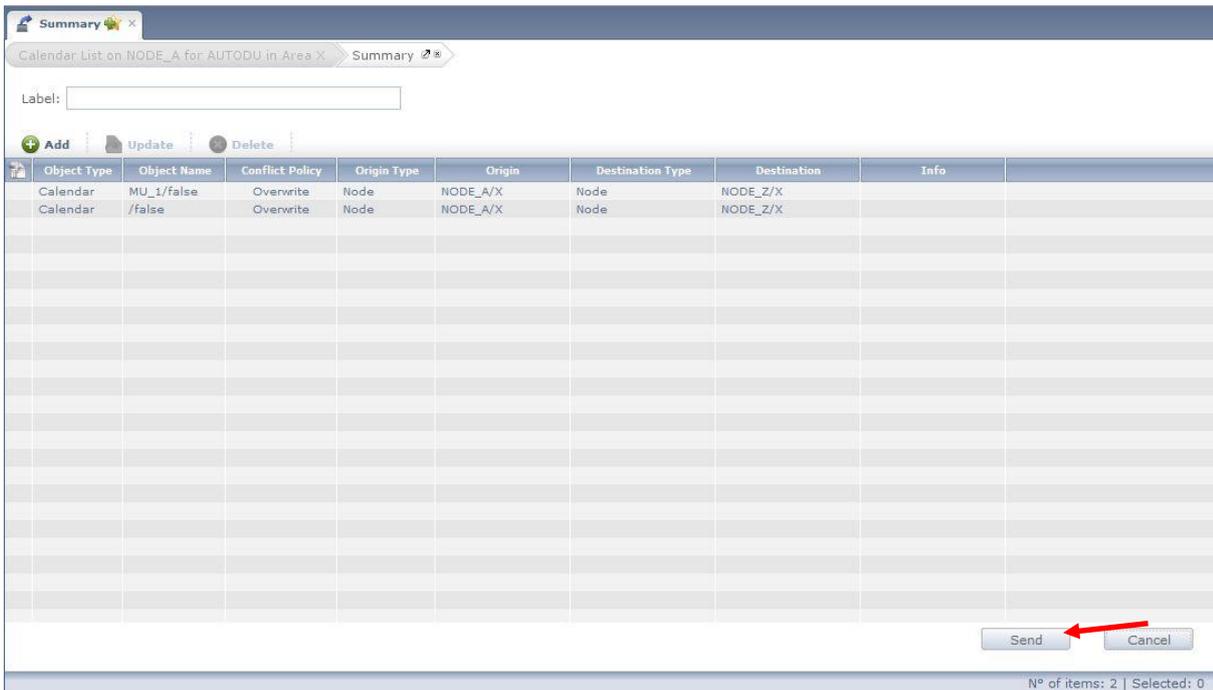
And select the Destination Nodes



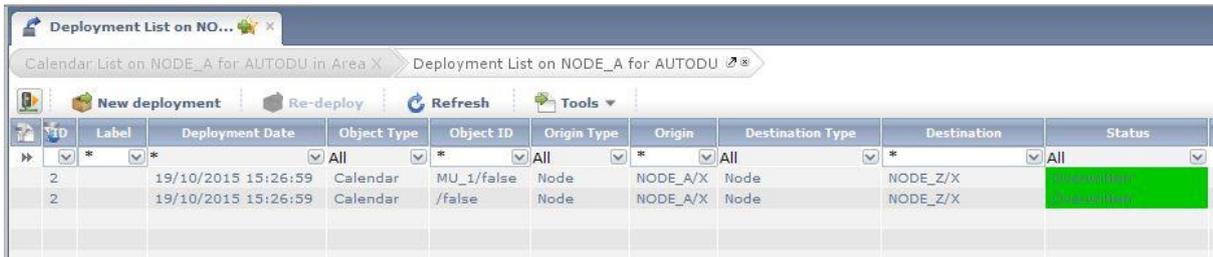
Once you click on “next” you get a first recap of the Calendars you want to deploy. Double check to make sure you selected the right Calendars. Hit on next again to confirm your selection.



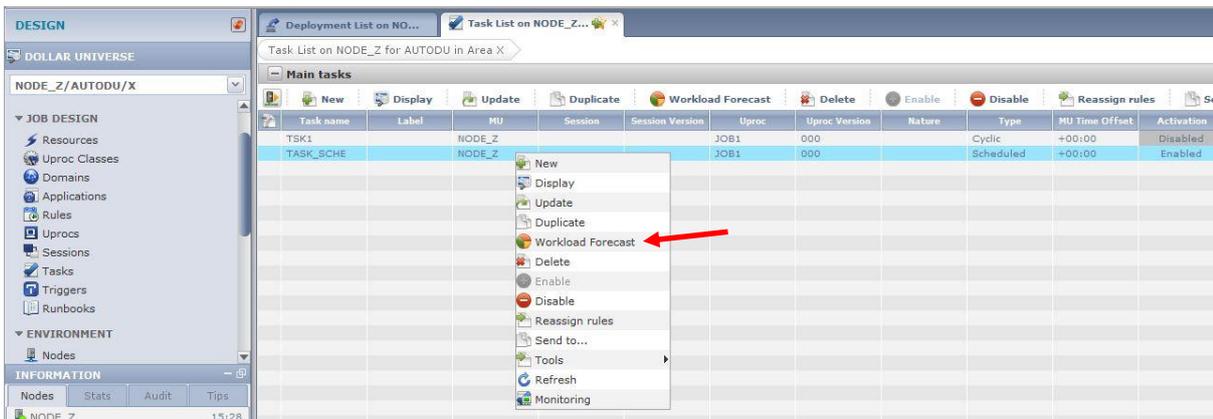
Now you get a summary of the Calendars you are about to deploy. Click on “send” to validate the deployment



Here you can control the deployment status:



If you want to control the schedules after the modification, you can use the workload forecast:



The screenshot shows the 'Workload Forecast on ...' window. The 'From' date is 19/10/2015 and the 'To' date is 20/09/2016, with a red arrow pointing to the 'To' date field. The 'Display Mode' is set to 'List'. The table below has columns for Task, MU, Node, Session, Uproc, and a date grid for 19/10/2015.

Task	MU	Node	Session	Uproc	19/10/2015																								
					0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

The screenshot shows the 'Workload Forecast on ...' window with the 'Display Mode' dropdown menu open. The menu options are 'List', 'GANTT', and 'Compact GANTT'. A red arrow points to the 'List' option. The 'From' date is 19/10/2015 and the 'To' date is 20/09/2016. The table below has columns for Task, MU, Node, Ses, and a date grid for 19/10/2015.

Task	MU	Node	Ses	19/10/2015																									
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		

The screenshot shows the 'Workload Forecast on ...' window with the 'Simulate' dropdown menu open. The menu options are 'Simulate' and 'Simulate with exceptions'. A red arrow points to the 'Simulate with exceptions' option. The 'From' date is 19/10/2015 and the 'To' date is 20/09/2016. The table below has columns for Task, MU, Node, Session, Session Version, Uproc, Start Date, End Date, and Average Condition Check Duration.

Task	MU	Node	Session	Session Version	Uproc	Start Date	End Date	Average Condition Check Duration

Deployment List on NO... Workload Forecast on ... Calendar List on NODE...

Task List on NODE_Z for AUTODU in Area X Workload Forecast on NODE_Z for AUTODU in ...

Select Tasks Simulate Display Mode Time Scale Tools

From: 19/10/2015 To: 20/09/2016

Task	MU	Node	Session	Session Version	Uproc	Start Date	End Date	Average Co
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/11/2015 08:00:00	01/11/2015 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/12/2015 08:00:00	01/12/2015 08:00:01	0s

Deployment List on NO... Workload Forecast on ... Calendar List on NODE...

Task List on NODE_Z for AUTODU in Area X Workload Forecast on NODE_Z for AUTODU in ...

Select Tasks Simulate Display Mode Time Scale Tools

From: 19/10/2015 To: 20/09/2016

Task	MU	Node	Session	Session Version	Uproc	Start Date	End Date	Average Co
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/11/2015 08:00:00	01/11/2015 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/12/2015 08:00:00	01/12/2015 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/01/2016 08:00:00	01/01/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/02/2016 08:00:00	01/02/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/03/2016 08:00:00	01/03/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/04/2016 08:00:00	01/04/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/05/2016 08:00:00	01/05/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/06/2016 08:00:00	01/06/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/07/2016 08:00:00	01/07/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/08/2016 08:00:00	01/08/2016 08:00:01	0s
TASK_SCHE	NODE_Z	NODE_Z			JOB1	01/09/2016 08:00:00	01/09/2016 08:00:01	0s

5.2 From the Command Line

Although we recommend updating any Calendar using the UniViewer Console, this procedure can also be done from the command line. The following commands use the default Calendar as the example.

Dollar Universe Version 5 Commands

Since a Calendar is limited to cover a maximum of 25 years, you may need to remove several years before you can add more years to the Calendar. In the example below, only 2 years have been removed.

Windows:

```
%UXEXE%\uxdlt cal exp mu=\" 00\" since=2000 before=2001
```

Unix:

```
$UXEXE/uxdlt cal exp mu=\" 00\" since=2000 before=2001
```

If the current Calendar has less than the maximum 25 years, you can then add several more years to the Calendar using the following command. In the example below, only 2 years have been added.

Windows:

```
%UXEXE%\uxadd cal exp mu=\" 00\" since=2016 before=2017
```

Unix:

```
$UXEXE/uxadd cal exp mu=\" 00\" since=2016 before=2017
```

Dollar Universe Version 6 Commands

Due to design differences between the major versions, in version 6 it is not possible to simply add years to an existing Calendar. In version 6, the “uxadd cal” command will create a new Calendar, effectively removing and replacing the existing one. It’s why we recommend to use the graphical interface for Dollar Universe v6.

Please note that the Calendar must cover at least 4 years: from current year -1 to current year +2. In the example below, a new Calendar will be created from 2014 until 2036.

Windows:

```
%UXEXE%\uxadd cal exp mu=" " since=2014 before=2036
```

Unix:

```
$UXEXE/uxadd cal exp mu=" " since=2014 before=2036
```

5.3 From a Script for V5 versions

Using the command lines above, combined with other commands to check the current Calendar, add holidays, etc. Automic has developed template scripts which will extend or create new Calendars, based on the version of Dollar Universe that is running. These scripts could be copied to a central location – a reference Node – and be used to extend the Calendars on those Nodes which the reference Node is able to communicate with.

These scripts have only been developed and tested for Linux/AIX and Windows systems.

Use of this script is not recommended for a version 6 as it may have side effects. If you want to extend your v6 Calendars, we recommend to use the deployment.

For more information:

- Please visit the Automic Community pages at:

<https://community.automic.com/discussion/5752/announcement-duas-Calendar-extension>

- Contact the Automic Customer Service. You can open an Information Request ticket on the Customer Portal and we will contact you back.