

Worksheet:
Reading the
Time/Date Stamp

This worksheet contains several reference charts as well as a few Time/Date conversion examples and exercises.

Conversion Tables:

Converting Time from a 24-Hour Clock to a 12-Hour Clock

24-Hour Check	12-Hour Check	24-Hour Check	12-Hour Check
00:00	12:00 <i>midnight</i>	12:00	12:00 pm <i>noon</i>
01:00	1:00 am	13:00	1:00 pm
02:00	2:00 am	14:00	2:00 pm
03:00	3:00 am	15:00	3:00 pm
04:00	4:00 am	16:00	4:00 pm
05:00	5:00 am	17:00	5:00 pm
06:00	6:00 am	18:00	6:00 pm
07:00	7:00 am	19:00	7:00 pm
08:00	8:00 am	20:00	8:00 pm
09:00	9:00 am	21:00	9:00 pm
10:00	10:00 am	22:00	10:00 pm
11:00	11:00 am	24:00	11:00 pm

Converting Coordinated universal Time (UTC) to your Local Time Zone

Standard Time	Daylight Savings Time
UTC - 5 hours = EST	UTC - 4 hours = EDT
UTC - 6 hours = CST	UTC - 5 hours = CDT
UTC - 7 hours = MST	UTC - 6 hours = MST
UTC - 8 hours = PST	UTC - 7 hours = PST

Related Issues

- Time Zones Acronyms: It is important to remember to add or subtract an hour if Daylight Saving Time was in effect. (Hawaii and parts of Arizona and Indiana do not use daylight saving time). Here are the acronyms referred to above.

Standard Time	Daylight Savings Time
EST - Eastern Standard Time	EDT - Eastern Daylight Time
CST - Central Standard Time	CDT - Central Daylight Time
MST - mountain Standard Time	MDT - mountain Daylight Time
PST - Pacific Standard Time	PDT - Pacific Daylight Time

- Time Zone Names: Coordinated Universal Time (UTC) is often expressed in three different ways: Greenwich Mean Time (GMT), Zulu (Z, this is also the American military time standard), and Universal Time (UT). In reality, all of these refer to slightly different time zones that differ only by a few seconds. For our purposes, they all refer to the same time zone.

Time/Date Stamp Conversion Examples

The following are two examples that illustrate how to read a Time/Date Stamp and how to determine the age of the data.

Example 1:

Time/Date Stamp: 12 DEC 00 07:00 UTC
 Current Time: December 12, 2000 8:00 am
 Location: Miami, FL

12 DEC 00 = December 12, 2000
UTC – 5 hours = EST
07:00 UTC – 5 hours = 02:00 EST
02:00 UTC = 2:00 am EST, therefore . . .

Time and Date the data was recorded:
2:00 am December 12, 2000

Current Time – Recorded Time = Age of Data
8:00 am December 12, 2000 – 2:00 am December 12,
2000 =
0 days, 6 hours, 0 minutes

Age of Data: 0 days, 6 hours, 0 minutes

Example 2:

Time/Date Stamp: 14 JAN 01 18:45 GMT
 Current Time: January 15, 2001 4:30 pm
 Location: Hoboken, NJ

14 JAN 01 = January 14, 2001
GMT – 5 hours = EST
18:45 GMT – 5 hours = 13:45 EST
13:45 GMT = 1:45 pm EST, therefore . . .

Time and Date the data was recorded:
1:45 pm January 14, 2001

Current Time – Recorded Time = Age of Data
4:30 pm January 15, 2001 – 1:45 pm January 14,
2001 =
0 days, 26 hours, 45 minutes

Age of Data: 1 day, 2 hours, 45 minutes

Converting Time/Date Stamps Practice

Determine when the data was taken and the “age” of the data.

1

Time/Date Stamp: 05 JAN 01 15:20 UTC

Current Time: January 5, 2001 3:00 pm

Location: Miami, FL

Time and Date when the data were recorded:

Age of Data:

2

Time/Date Stamp: 31 DEC 00 05:20 GMT

Current Time: January 1, 2001 9:00 am

Location: Phoenix, AZ

(Phoenix does NOT use Daylight Saving Time)

Time and Date the data was recorded:

Age of Data:

3

Time/Date Stamp: 22 JUL 00 22:30 Z

Current Time: July 25, 2000 11:30 pm

Location: Cleveland, OH

Time and Date the data was recorded:

Age of Data:
