



NPR Intrinsic Macros (MAGIC Version)

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The purpose of this article is to help readers perform common tasks easily while developing NPR reports or CDS attributes using NPR's intrinsic macros. The term "intrinsic" refers to the fact that these macros are prebuilt into the NPR development environment.

The following tables cover NPR macros that the author uses most frequently. Macros are organized by function with descriptions and examples of their use. This list is not intended to be exhaustive, but rather a representation of common macros used while creating NPR reports and CDS attributes.

I have excluded macros used for looping data structures (e.g., @Next and @Prev), which require a great deal of explanation. Additionally, several macros related to terminal output (i.e., macros that translate to "D" codes) are not included because newer versions of MEDITECH prohibit their use in customer tools. Future articles will address the use of macros for looping data structures and "D" code syntax.

If you frequently use an NPR macro not listed, please email the author at marvin.johnson@capitassolutions.com.

Table 1 – Translates to Data Element

| Macro | Description | Example |
|--------------|--|--|
| @.today | Represents the current system date in format “yyyymmdd”. | “Today is “_@.today |
| @.now | Represents the current system time in format “hhmm”. | IF {@.now<1200 “Before noon”} |
| @.user | Mnemonic of the user assigned to the current job | IF {@.user=”CAPITAS” %Z.ddc(0)} |
| @.db | Currently active application database | %Z.rw.fragment(“BAR.PAT.zcus.capitas.R”,@.db#”1.” |
| @.facility | Facility currently selected in multi-facility database | IF {@.facility=@ADM.PAT.facility @PROCESS} |
| @.device | Current user’s device | “Report ran from “_@.device |
| @.response | On a CDS will represent the value of the query just documented. Placed on FCL or REQI attributes. | FCL1=@.response>9 FCL1A=@W.err(“Must be less than 10!”) |

Table 2 – Math Functions

| Macro | Description | Example |
|--------------|--|----------------------|
| @Add(A,B) | Adds A argument to variable defined in B argument. | @Add(1,/TOTAL) |
| @Sub(A,B) | Subtracts A argument from variable defined in B argument. | @Sub(1,/TOTAL) |
| @Sub0(A,B) | Same as @Sub except negative results result in a value of 0. | @Sub(1,/TOTAL) |
| @Max(A,B) | Returns the maximum of two values. | @Max(/ONE,/TWO)^/MAX |
| @Min(A,B) | Returns the minimum of two values. | @Min(/ONE,/TWO)^/MIN |

Table 3 – String Formatting

| Macro | Description | Example |
|--------------|--|--|
| @Title(A,B) | Concatenates args and automatically converts dates to external format. | @Title(“Today is :”,@.today) Returns: Today is 03/12/2009 |
| @Quote(A) | Places quotes around arg. Great for comma delimited download reports. | @Quote(@name) Returns: “JOHNSON,MARVIN” |

Table 4 – Logical Operator

| Macro | Description | Example |
|---------|------------------------------|--|
| @Not(A) | Determines if A is not true. | IF {@Not(/FOUND) @W.err("Not Found!")} |

Table 5 – Windowing Functions

| Macro | Description | Example |
|--|---|---|
| @W.return(A,B,etc) | Displays arguments in new window. Waits for user to press return. | FCL1=IF{@.response>10 @W.return("Over 10")} |
| @W.err(A,B,etc) | Same as @W.return except: 1. Rings the terminal's bell. 2. Position of the window is different if used with a screen or from procedure logic. | FCL1=@.response>10 FCL1A=@W.err("Must be less than 10") |
| @W.display(A,B,etc) | Displays arguments in a new window. Window remains until @W.display is called again using null as arg A. | @W.display("Gathering doctor list ..."), ; ; Code to gather list here ; ; now close the message @W.display("") |
| @W.choice(A,B,C) A=list of choices B=default C=text | Prompts user to choose from list A. If default not wanted, type text as B. | @W.choice("ASB","B","(A)ll,(S)um,(B)oth?") Result: (A)ll,(S)um,(B)oth? : B |
| @W.yes.no(A) | Prompts user to answer "Y" or "N". | @W.yes.no("Show Detail?")^DETAIL |

Table 6 – Report Writer Specific

| Macro | Description | Example |
|----------------|---|--|
| @.new.page.pgm | New page program's name | Add name of report to computed field: VAL=@.new.page.pgm |
| @.lines.left | Lines left on page | Force a page break if lines left < 5: LC=IF{@.lines.left<5 %[!.new.page.pgm]}(0)} |
| @.line | Use if report written 100% from macro logic. Decrements lines left and calls the new page program if none left. Download reports without @.line will not begin file creation until the report finishes. | DO {@Next(urn) "!"^D, @name_D^!, @sex_D^!, @age_D^!, @Z.cr.lf^! @.line} |

