

NYC Police

Communications Technician Study Guide



By Lewis Morris

Nyc Police Communications Technician Exam Study Guide

Michal Rosen-Zvi



Nyc Police Communications Technician Exam Study Guide:

Discover tales of courage and bravery in is empowering ebook, Unleash Courage in **Nyc Police Communications Technician Exam Study Guide** . In a downloadable PDF format (PDF Size: *), this collection inspires and motivates. Download now to witness the indomitable spirit of those who dared to be brave.

<https://crm.avenza.com/data/detail/index.jsp/Nec%20Vt575%20Manual.pdf>

Table of Contents Nyc Police Communications Technician Exam Study Guide

1. Understanding the eBook Nyc Police Communications Technician Exam Study Guide
 - The Rise of Digital Reading Nyc Police Communications Technician Exam Study Guide
 - Advantages of eBooks Over Traditional Books
2. Identifying Nyc Police Communications Technician Exam Study Guide
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Nyc Police Communications Technician Exam Study Guide
 - User-Friendly Interface
4. Exploring eBook Recommendations from Nyc Police Communications Technician Exam Study Guide
 - Personalized Recommendations
 - Nyc Police Communications Technician Exam Study Guide User Reviews and Ratings
 - Nyc Police Communications Technician Exam Study Guide and Bestseller Lists
5. Accessing Nyc Police Communications Technician Exam Study Guide Free and Paid eBooks
 - Nyc Police Communications Technician Exam Study Guide Public Domain eBooks
 - Nyc Police Communications Technician Exam Study Guide eBook Subscription Services
 - Nyc Police Communications Technician Exam Study Guide Budget-Friendly Options
6. Navigating Nyc Police Communications Technician Exam Study Guide eBook Formats

- ePub, PDF, MOBI, and More
 - Nyc Police Communications Technician Exam Study Guide Compatibility with Devices
 - Nyc Police Communications Technician Exam Study Guide Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Nyc Police Communications Technician Exam Study Guide
 - Highlighting and Note-Taking Nyc Police Communications Technician Exam Study Guide
 - Interactive Elements Nyc Police Communications Technician Exam Study Guide
 8. Staying Engaged with Nyc Police Communications Technician Exam Study Guide
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Nyc Police Communications Technician Exam Study Guide
 9. Balancing eBooks and Physical Books Nyc Police Communications Technician Exam Study Guide
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Nyc Police Communications Technician Exam Study Guide
 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
 11. Cultivating a Reading Routine Nyc Police Communications Technician Exam Study Guide
 - Setting Reading Goals Nyc Police Communications Technician Exam Study Guide
 - Carving Out Dedicated Reading Time
 12. Sourcing Reliable Information of Nyc Police Communications Technician Exam Study Guide
 - Fact-Checking eBook Content of Nyc Police Communications Technician Exam Study Guide
 - Distinguishing Credible Sources
 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
 14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Nyc Police Communications Technician Exam Study Guide Introduction

In the digital age, access to information has become easier than ever before. The ability to download Nyc Police Communications Technician Exam Study Guide has revolutionized the way we consume written content. Whether you are a student looking for course material, an avid reader searching for your next favorite book, or a professional seeking research papers, the option to download Nyc Police Communications Technician Exam Study Guide has opened up a world of possibilities. Downloading Nyc Police Communications Technician Exam Study Guide provides numerous advantages over physical copies of books and documents. Firstly, it is incredibly convenient. Gone are the days of carrying around heavy textbooks or bulky folders filled with papers. With the click of a button, you can gain immediate access to valuable resources on any device. This convenience allows for efficient studying, researching, and reading on the go. Moreover, the cost-effective nature of downloading Nyc Police Communications Technician Exam Study Guide has democratized knowledge. Traditional books and academic journals can be expensive, making it difficult for individuals with limited financial resources to access information. By offering free PDF downloads, publishers and authors are enabling a wider audience to benefit from their work. This inclusivity promotes equal opportunities for learning and personal growth. There are numerous websites and platforms where individuals can download Nyc Police Communications Technician Exam Study Guide. These websites range from academic databases offering research papers and journals to online libraries with an expansive collection of books from various genres. Many authors and publishers also upload their work to specific websites, granting readers access to their content without any charge. These platforms not only provide access to existing literature but also serve as an excellent platform for undiscovered authors to share their work with the world. However, it is essential to be cautious while downloading Nyc Police Communications Technician Exam Study Guide. Some websites may offer pirated or illegally obtained copies of copyrighted material. Engaging in such activities not only violates copyright laws but also undermines the efforts of authors, publishers, and researchers. To ensure ethical downloading, it is advisable to utilize reputable websites that prioritize the legal distribution of content. When downloading Nyc Police Communications Technician Exam Study Guide, users should also consider the potential security risks associated with online platforms. Malicious actors may exploit vulnerabilities in unprotected websites to distribute malware or steal personal information. To protect themselves, individuals should ensure their devices have reliable antivirus software installed and validate the legitimacy of the websites they are downloading from. In conclusion, the ability to download Nyc Police Communications Technician Exam Study Guide has transformed the way we access information. With the convenience, cost-effectiveness, and accessibility it offers, free PDF downloads have become a popular choice for students, researchers, and book lovers worldwide. However, it is crucial to engage in ethical downloading practices and prioritize personal security when utilizing online platforms. By doing so, individuals can make the most of the vast array of free PDF resources available and embark on a journey of continuous

learning and intellectual growth.

FAQs About Nyc Police Communications Technician Exam Study Guide Books

1. Where can I buy Nyc Police Communications Technician Exam Study Guide books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Nyc Police Communications Technician Exam Study Guide book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Nyc Police Communications Technician Exam Study Guide books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Nyc Police Communications Technician Exam Study Guide audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.

10. Can I read Nyc Police Communications Technician Exam Study Guide books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Nyc Police Communications Technician Exam Study Guide :

nec vt575 manual

[netobjects fusion 1 user guide](#)

[nelson chemistry 30 solutions manual](#)

[netbeans platform for beginners](#)

[nelson rain date manual](#)

[network guide to networks 5th edition powerpoint chapter 3](#)

nemo pump assembly manual

nentrepreneur previous question paper of 20

[netopia 334 user guide](#)

[nelson thornes chemistry answers chapter 6](#)

[nervous and endocrine riddle answer](#)

[network assessment guide](#)

nelson literacy grade 3 early settlers

[nerc exams study guide](#)

[nelson port a pit chicken recipe](#)

Nyc Police Communications Technician Exam Study Guide :

matlab explicit and implicit euler s methods of a heat transfer - Mar 11 2023

web mar 31 2021 1 i have been experimenting a bit with an explicit and implicit euler s methods to solve a simple heat transfer partial differential equation $t_t + \alpha \frac{t}{x} = 2t$ x 2 t temperature x axial dimension the initial condition i c i

heat equation 2d t x by implicit method file exchange matlab - Jul 15 2023

web feb 14 2014 overview functions version history reviews 4 discussions 0 numerical solution using implicit method to heat equation x t cite as carlos 2023 heat

model for implicit finite difference heat equation with kinetic - Dec 08 2022

web sep 13 2013 model for implicit finite difference heat learn more about finite difference heat equation heat conduction kinetic reactions heat diffusion implicit method heat transfer coefficient $w/m^2 \cdot K$ a pre exponential factor $1/s$ and e activation energy kJ/mol find the treasures in matlab central and discover how the

a finite difference routine for the solution of transient one - Aug 04 2022

web the implicit finite difference routine described in this report was developed for the solution of transient heat flux problems that are encountered using thin film heat transfer gauges in aerodynamic testing the routine allows for curvature and varying thermal properties within the substrate material the routine was written using matlab script

finite element analysis in matlab part 2 heat transfer using finite - Nov 07 2022

web sep 14 2023 learn how to solve heat transfer problems using the finite element method in matlab with partial differential equation toolbox

matlab implicit finite difference 2d heat math solves everything - Dec 28 2021

web fitting an experimental data to the finite difference approximated solution heat transfer by explicit finite difference

matlab solution for implicit finite difference heat equation with - Jun 14 2023

web finite difference equations for cylinder and sphere for 1d transient heat conduction with convection at surface general equation is $1/\alpha \frac{dT}{dt} = \frac{1}{r} \frac{d}{dr} \left(r \frac{dT}{dr} \right)$ for $r=0$ $1/\alpha \frac{dT}{dt} = \frac{1}{p} \frac{d}{dr} \left(p \frac{dT}{dr} \right)$ for $r=0$ where p is shape factor $p=1$ for cylinder $p=2$ for sphere function $T = f(r,t)$ $pbar = cpbar \cdot kbar \cdot h \cdot tinf$

implicit finite difference 2d heat matlab answers mathworks - Oct 06 2022

web jan 14 2017 implicit finite difference 2d heat learn more about finite difference heat equation implicit finite difference matlab i m currently working on a problem to model the heat conduction in a rectangular plate which has insulated top and bottom using a implicit finite difference method

solve pde using matlab finite difference heat transfer at - May 01 2022

web 1 27k subscribers 1 1k views 5 months ago fun matlab matlab pde numericalmethods partialdifferentiation numericalsolution partialderivatives mol finitedifferences

programming of finite difference methods in matlab - Jan 29 2022

web programming of finite difference methods in matlab 5 to store the function for the matrix free implementation the coordinate consistent system i e ndgrid is more intuitive since the stencil is realized by subscripts let us use a matrix $u(1:m,1:n)$ to store the function the following double loops will compute u for all interior nodes

matlab solution for implicit finite difference heat equation with - Aug 16 2023

web sep 13 2013 finite difference equations for cylinder and sphere for 1d transient heat conduction with convection at surface general equation is $1/\alpha \frac{dT}{dt} = \frac{1}{r} \frac{d}{dr} \left(r \frac{dT}{dr} \right)$ for $r=0$ $1/\alpha \frac{dT}{dt} = \frac{1}{p} \frac{d}{dr} \left(p \frac{dT}{dr} \right)$ for $r=0$ where p is shape factor p

1 for cylinder p 2 for sphere function t funcacbar

finite explicit method for heat differential equation matlab - Jun 02 2022

web jun 4 2023 finite explicit method for heat differential equation i m get struggles with solving this problem using finite difference explicit and implicit finite difference method solve problem with initial condition $u = 0 \cdot \sin x$ and boundary conditions so i tried but get struggles and really need advises

1d heat conduction using explicit finite difference method matlab - Feb 27 2022

web feb 8 2023 hello i am trying to write a program to plot the temperature distribution in a insulated rod using the explicit finite central difference method and 1d heat equation the rod is heated on one end at 400k and exposed to ambient temperature on the right end at

finite difference implicit method matlab answers mathworks - Feb 10 2023

web dec 15 2019 i tried to solve with matlab program the differential equation with finite difference implicit method the problem with finite difference implicit method solve heat problem with initial condition and boundary conditions graphs not look good enough i believe the problem in method realization implicit method part

finite difference method github topics github - Jan 09 2023

web sep 9 2023 this matlab script models the heat transfer from a cylinder exposed to a fluid i used finite difference explicit for cylindrical coordinates in order to derive formulas temperature matrix of the cylinder is plotted for all time steps three points are of interest $t(0,0,t)$ $t(r,0,t)$ $t(0,l,t)$ finally a video of changing temp is generated

2d heat equation using finite difference method with steady - Apr 12 2023

web jan 27 2016 this code is designed to solve the heat equation in a 2d plate using fixed boundary conditions dirichlet conditions and initial temperature in all nodes it can solve until reach steady state with tolerance value selected in the code

heat transfer github topics github - May 13 2023

web jul 3 2022 this matlab script models the heat transfer from a cylinder exposed to a fluid i used finite difference explicit for cylindrical coordinates in order to derive formulas temperature matrix of the cylinder is plotted for all time steps three points are of interest $t(0,0,t)$ $t(r,0,t)$ $t(0,l,t)$ finally a video of changing temp is generated

heat transfer by explicit finite difference matlab answers matlab - Jul 03 2022

web aug 31 2018 i want to solve the 1 d heat transfer equation in matlab with an insulator heat flux $dt/dx = 0$ $t = 0$ at left boundary condition and temperature at the right boundary $t(l,t)$ is zero and initial temperature 20 degree centigrade and length of the rod is 0.2m and thermal diffusivity $\alpha = 0.001$ by explicit finite difference method

1 finite difference example 1d implicit heat equation - Sep 05 2022

web 1 finite difference example 1d implicit heat equation 1.1 boundary conditions neumann and dirichlet we solve the

transient heat equation $\rho c_p \frac{\partial T}{\partial t} = k \nabla^2 T$ on the domain $0 \leq x \leq L$ subject to the following boundary conditions for fixed temperature $T(0,t) = T_L$ and $T(L,t) = T_R$ with the initial condition

pdf comparative study of different implicit finite difference methods - Mar 31 2022

web aug 21 2020 pdf finite difference implicit methods have been frequently used for solving the heat convection diffusion equation one of the biggest advantages of find read and cite all the research

forever amber brown comprehension questions tpt - Mar 09 2023

web forever amber brown description instructions things are really changing for amber her friend moved away to another state her parents are no longer together and it

the best book club ideas for forever amber by kathleen winsor - Apr 29 2022

web it s justin time amber brown paula danziger 2001 11 12 amber brown wants a watch for her seventh birthday more than anything else she knows she will feel more grown up

forever amber brown teaching resources tpt - Jul 13 2023

web this product is a packet of comprehension questions for the book forever amber brown there are questions for each chapter it is a good way to for the students to practice

forever amber brown by paula danziger goodreads - Dec 26 2021

web discussion questions for forever amber brown october 2015 bondage video discussion forum archive cruelty that will haunt me forever andrew sachs

forever amber brown comprehension questions extra - Jan 07 2023

web about forever amber brown amber brown wants a room makeover not another life makeover she s used to changes finding a new best friend brandi having her old best

discussion questions for forever amber brown pdf free - Sep 03 2022

web 15 questions new you can now add content to shared folders with colleagues copy edit save edit report an issue 30 seconds 1 pt q why does amber brown not

discussion questions for forever amber brown - Feb 25 2022

web discussion questions for forever amber brown author webar ifo dk 2023 08 03 18 46 09 subject discussion questions for forever amber brown keywords

discussion questions for forever amber brown pdf sherry - Oct 24 2021

forever amber brown by paula danziger 9780142412015 - Dec 06 2022

web mar 27 2023 amber brown and justin daniels are best friends they ve known each other for practically forever sit next

to each other in class help each other with

discussion questions for forever amber brown - Oct 04 2022

web discussion questions for forever amber brown pdf pages 3 22 discussion questions for forever amber brown pdf upload mita s robertson 3 22 downloaded

discussion questions for forever amber brown pdf full pdf - May 11 2023

web title discussion questions for forever amber brown pdf full pdf support ortax org created date 9 6 2023 6 06 47 am

discussion questions for forever amber brown download only - Nov 05 2022

web discussion questions for forever amber brown recognizing the exaggeration ways to acquire this book discussion questions for forever amber brown is additionally

amber brown goes fourth questions answers for quizzes and - Aug 02 2022

web you could buy guide discussion questions for forever amber brown or get it as soon as feasible you could speedily download this discussion questions for forever

downloadable free pdfs discussion questions for forever - May 31 2022

web apr 23 2021 opening questions for discussion of forever amber 1 forever amber was once banned in many places this book has quite a reputation in what ways is it or

forever amber brown quiz softschools com - Feb 08 2023

web forever amber brown by paula danziger receive comprehension questions in task card format with response forms for students text is also included on printable worksheets

discussion questions for forever amber brown jeannette walls - Mar 29 2022

web discussion questions for forever amber brown discussion questions for forever amber brown def con 18 hacking conference speakers sample moot game

discussion questions for forever amber brown - Nov 24 2021

web jun 3 2023 amber brown is not a crayon paula danziger 2006 09 07 only amber brown can handle her best friend moving away with such honesty humor and heart

discussion questions for forever amber brown - Jan 27 2022

web read 39 reviews from the world s largest community for readers amber brown wants a room makeover not another life makeover she s used to changes findi

discussion questions for forever amber brown lisa - Aug 14 2023

web discussion questions for forever amber brown yeah reviewing a books discussion questions for forever amber brown could be credited with your near friends listings

discussion questions for forever amber brown pdf richard - Jun 12 2023

web mar 15 2023 *discussion questions for forever amber brown pdf right here we have countless books discussion questions for forever amber brown pdf and collections*

forever amber brown amber brown 5 by paula danziger - Apr 10 2023

web 971 ratings 39 reviews *amber brown s plans to finally reunite her divorced parents come to a halt when her mother begins thinking of getting married again in a chapter book*

discussion questions for forever amber brown pdf myhome - Jul 01 2022

web this *discussion questions for forever amber brown pdf but stop happening in harmful downloads rather than enjoying a fine pdf subsequently a mug of coffee in the*

the jet is a new hydrogen powered boat that can fly at 40 - Jul 27 2022

web feb 4 2022 *the jet is a new hydrogen powered boat that can fly at 40 knots robb report motors marine february 4 2022 forget ferries this hydrogen powered flying boat soars 3 feet above*

how the british made a jet powered flying boat fighter plane - Feb 19 2022

web apr 5 2023 *military news technology how the british made a jet powered flying boat fighter plane by miguel ortiz updated on apr 5 2023 3 minute read summary when people think of seaplanes large propeller driven aircraft are generally what come to mind multi engined planes like the pby 5a catalina*

seaplane wikipedia - Jun 06 2023

web a seaplane is a powered fixed wing aircraft capable of taking off and landing alighting on water 1 seaplanes are usually divided into two categories based on their technological characteristics floatplanes and flying boats the latter are

world s one of a kind flying boat the jet set to launch in dubai - Apr 23 2022

web jan 31 2022 *a switzerland based start up has signed an agreement with a uae based company to manufacture and operate the jet the first clean energy and hydrogen powered flying boat the official wam news agency reported on sunday*

our experimental jet flying boat the saunders roe sra 1 - Aug 28 2022

web mar 25 2020 *the aircraft would be designed as a flying boat rather than a floatplane which would reduce weight and drag give better aerodynamics and just as importantly better fuel efficiency although saunders roe were well known for their previous flying boat work they were blessed with the arrival at this time by sir arthur gouge from their main*

beriev a 40 be 200 be 103 flying boats airvectors - May 25 2022

web in the post soviet era the beriev organization continued in that line of work developing three flying boats the a 40 military jet flying boat the be 200 jetliner flying boat and the be 103 light civil flying boat

beriev be 200 wikipedia - Jul 07 2023

web the beriev be 200 altair russian Бериев Бе 200 is a jet powered amphibious flying boat of utility type designed and built by the beriev aircraft company marketed as being designed for fire fighting search and rescue maritime patrol cargo and passenger transportation it has a capacity of 12 000 litres 3 200 us gal of water

[do any airlines still operate flying boats](#) - Apr 04 2023

web apr 11 2020 a seaplane or floatplane as they are often referred to is a pontoon based plane that has floats instead of having wheels attached to it this means that the aircraft s body unlike flying boat never touches the water who were the flying boat operators pan american airways

[5 of the biggest flying boats of all time simple flying](#) - Mar 03 2023

web oct 30 2023 flying boats were popular in the early days of aviation for transatlantic travel offering comfort and versatility with the ability to land on water the largest flying boats ever built include the hughes h 4 hercules with a wingspan of 321 feet and the saunders roe princess with innovative features but was ultimately canceled

seaplane types safety benefits britannica - Jan 01 2023

web oct 5 2023 seaplane see all media category science tech seaplane any of a class of aircraft that can land float and take off on water seaplanes with boatlike hulls are also known as flying boats those with separate pontoons or floats as floatplanes

10 modern flying boats and passenger planes with floats you youtube - May 05 2023

web sep 23 2020 we have already covered modern era amphibious planes that serve within the personal aviation segment but now the time has come to review larger flying boats and passenger planes with floats

flying boats the giants of the skies flightlineweekly - Jun 25 2022

web jul 13 2022 10 min read flying boats the giants of the skies this history of world travellers will by no means be accurate if the giant flying boats were not mentioned prominently before the second world war it was widely considered to be the only way to build large airliners

navy s flying boats naval sea systems command - Feb 02 2023

web introduction may 27 1919 the nc 4 commanded by lieutenant commander albert c read united states navy lands in the harbor of lisbon portugal this event marks the first time in history that

[list of flying boats and floatplanes wikipedia](#) - Oct 10 2023

web the following is a list of seaplanes which includes floatplanes and flying boats a seaplane is any airplane that has the capability of landing and taking off from water while an amphibian is a seaplane which can also operate from land

[saunders roe princess wikipedia](#) - Sep 28 2022

web saro princess g alun at the east cowes works in september 1954 on 22 august 1952 the prototype g alun conducted its maiden flight piloted by geoffrey tyson 10 the initial flight lasted for 35 minutes in which the flying boat performed a

complete circumnavigation of the isle of wight

the martin p6m seamaster what might have been defense media network - Mar 23 2022

web and the most ambitious seaplane ever planned in the united states came into being the martin p6m seamaster a graceful four jet flying boat almost the size of a b 52 stratofortress

flying boat wikipedia - Aug 08 2023

web a flying boat is a type of fixed winged seaplane with a hull allowing it to land on water 1 it differs from a floatplane in having a fuselage that is purpose designed for flotation while floatplanes rely on fuselage mounted floats for buoyancy

martin p6m seamaster wikipedia - Nov 30 2022

web the martin p6m seamaster was an experimental strategic bomber flying boat built by the glenn l martin company for the united states navy that almost entered service production aircraft were built and navy crews were undergoing operational training with service entry expected in about six months when the program was cancelled on 21 august 1959

u s navy jet flying boats futuristic 1950s seaplanes from youtube - Oct 30 2022

web introduction u s navy jet flying boats futuristic 1950s seaplanes from martin and convair celebrating aviation with mike machat 30 4k subscribers subscribe 13k views 1 year ago an

category jet seaplanes and flying boats wikipedia - Sep 09 2023

web pages in category jet seaplanes and flying boats the following 10 pages are in this category out of 10 total this list may not reflect recent changes